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ORIGINAL LECTURES.

CLINICAL LECTURE

ON TWO CASES OF BRIGHT'S DISEASE OF THE KIDNEYS.

Delivered at the Hospital of the University of Pennsylvania

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Reported by WILLIAM H. MORRISON, M.D.

I.—CHRONIC INTERSTITIAL NEPHRITIS, SIMULATING BEGINNING PHTHISIS.

GENTLEMEN,—The first patient that I shall show you to-day is Mrs. F., 38 years old, a native and resident of this city, and by occupation an operator on a sewing-machine. Her habits have been good, but she has been exposed to strong and frequent draughts of air while at her work. Her father is rheumatic, and her mother died of cancer of the uterus, but otherwise the family history is good. She is married, and has had three children, one of whom died of tubercular meningitis, but the other two are living and healthy. She has always been strong and hearty, although liable to take cold. Seven years ago, she contracted a severe cold, which did not pass away, as previous ones had done, but left her with a little morning cough and a slight muco-purulent expectoration. Since then she has never weighed as much as she did before. At this time there was no shortness of breath, no night-sweats, no fever, and the cough was not troublesome. The appetite and digestion continued good as long as she was careful in the selection of her food. Five years ago, she had a severe renewal of her cold, and then began to have stitches in her side, more cough, and more expectoration, which at times was streaked with blood. This lasted one month; she gradually lost flesh, and although the cold afterwards passed away, and she went back to her former condition, with a little morning cough and expectoration, she never regained her flesh, but slowly became more emaciated. In the early part of last winter, about December, she was particularly sensitive to cold, and took a succession of heavy colds, and then noticed, for the first time, shortness of breath on exertion. The cough began to keep her awake at night, and she ran down more rapidly.

On July 28, 1883, she was admitted to the hospital for uterine disease, and examination proved that there was some trouble with the cervix (epithelioma of the neck of the womb).

Two weeks before admission, she caught a heavy cold, had increased cough, and had, on two occasions, spitting of blood. She also had pains in the side, a great deal of muco-purulent expectoration, some dyspnœa on exertion, and now for the first time did she make mention of any symptom attracting attention to the kidneys: she stated that for one month she had been passing more water than common, and getting up twice in the night to urinate.

There could not be a more impressive illustration than this of the curiously latent way in which kidney-disease often begins and continues until a late period of its development. Would you not naturally suspect, from the history, that this woman, gradually running down in health and subject to colds on the slightest exposure, was preparing for phthisis? Yet all this time the real underlying cause of her poor health, of her morbid sensitiveness to cold, and of her varied, irregular, and intermittent symptoms, had been the development of Bright's disease, which very possibly went back to a nephritis occurring with one of her childbirths. What has happened here happens very frequently, and you will avoid mistakes only by examining the urine, even where attention is not in the least degree called to the kidneys as the seat of disease.

When this patient was admitted, we found evidences of pulmonary disease. There was congestion of the lungs, with râles throughout the chest; the liver and spleen were normal. The urine was intermittingly albuminous; that is to say, sometimes there would be albumen and sometimes there would be none.

The following notes were taken of her condition:

"September 4th. She seemed to be improving.

"5th. Lost eight ounces of blood by hæmoptysis.

"6th. During the night she was seized with a convulsion, followed by coma.

"7th. This morning she had a series of

severe convulsions, at intervals of half an hour, alternating with coma. The urine, which was removed with a catheter, proved to be highly albuminous.

"8th. The albumen was less abundant, she was conscious, and the amount of urine was increasing. Some dry clots were spit up, and the evidences of congestion of the lung were disappearing.

"From the 8th to the 14th she improved.

"15th. She complained of pleuritic pains in the left side. There was no friction-sound. Dyspeptic symptoms had appeared. The urine had now become copious (sixty-four ounces), light-colored, of low specific gravity (1010), the albumen diminished to a trace, and the sediment contained, as it had done before, hyaline and granular tube-casts.

"24th. She is still improving. She has had distinct muscular twitchings, sometimes of the arm and sometimes of the leg, but there has been no convulsion, no headache, and the mind is perfectly bright and clear."

The muscular twitchings continued for several days, but the convulsions did not return. The urine remains as it was, copious, varying from fifty to seventy-five ounces, with a specific gravity changing with the quantity of fluid, and always depositing hyaline and sometimes granular tube-casts.

I shall examine her before you, and speak of the diagnosis and the management of the case.

The history is an interesting one, and it is somewhat unusual in the very great prominence of the pulmonary symptoms. I shall first examine the heart. The left ventricle strikes the chest with great force, and the apex-beat extends around to the anterior border of the left axilla, considerably outside of the line of the nipple. The præcordia shows an increased impulse and extended area of dulness, but no valvular murmur. The first sound of the heart is, however, prolonged and heavy. This is a case of secondary, simple hypertrophy of the heart, dependent, not on valvular disease, but upon changes in the kidneys and arteries. The apex of the left lung in front is full of fine and coarse gurgling râles. The same thing is found posteriorly. There is marked dulness over the lower part of the left lung posteriorly. Over this region there is ægophony or bleating bronchophony, in which the voice is transmitted with a peculiar quiver. This is not the bronchophony of consolidation, but that of pleural thickening, with imperfect expansion of the lung. On the right side the percussion-note is normal, and there are no râles. On the left side we have chronic congestion and consolidation, or, at any rate, condensation of the lower part of the lung. The right lung is normal. These changes indicate chronic pleuro-pneumonia of the left side, with congestion of a considerable part of the lung. I think that this is not of a tuberculous, but of a chronic inflammatory character. The hemorrhages which have occurred from time to time during the last five years have doubtless been connected with the intense engorgement of the lung; but some of them were probably associated with the disorder of the heart and with the progressive changes in the capillary vessels. It is, of course, possible that these changes in the lung are dependent upon the development of a very slow form of phthisis; but, in view of the fact that it is the lower part of the lung, behind, which is involved, the long continuance of the case, lasting over five years, and the presence of Bright's disease, I think that the condition of the lung is not due to a tuberculous process, but to chronic inflammation with intense congestion. I should therefore not be surprised to find that, under proper treatment, the condition of the lung would materially improve.

As to the kidney-disease, she is evidently developing a chronic contracted kidney. It is either that, or it is the amyloid kidney.

As you are aware, there are three principal forms of chronic organic disease of the kidney: 1, the contracted, granular kidney, dependent upon interstitial inflammation, hardening, and contraction; 2, the large white kidney, dependent upon chronic tubular inflammation; and, 3, the amyloid kidney, in which the renal capillaries and the basement-membrane of the tubules have their proper nitrogenous contents substituted by a peculiar starchy or amyloid material. This latter form is met with in chronic syphilis, chronic phthisis, in old suppurative diseases, in long-standing abscess, bone-disease, and ulceration. In both the chronic contracted kidney and in the amyloid kidney the urine is copious,

as it is in this woman, varying from sixty to eighty or more ounces per day. In the contracted kidney the specific gravity is usually low. In amyloid disease it is higher,—almost normal. In contracted kidney the amount of albumen is small, while in amyloid disease it is large. In contracted kidney the tube-casts are small hyaline; in amyloid disease there are numerous large hyaline casts. In contracted kidney dropsy appears late, and is not very marked until the closing stages; in amyloid disease it is early, extensive, and extreme. In contracted kidney the associated lesions are hypertrophy of the heart, hemorrhages into the retina, intercurrent attacks of pleurisy and pulmonary congestion, convulsions, and coma. In amyloid disease the associated changes are hypertrophy of the liver and spleen, with evidences of long-standing suppurative disease, with less tendency to affections of the heart, and less tendency to uræmic attacks.

From this statement you will see that, if it were not for the single fact of the existence of this chronic lung-trouble, this would unhesitatingly be classed as one of chronic contracted kidney. Let us now see if we find any evidences of amyloid disease of the liver or spleen. Are these organs enlarged? The liver is certainly not enlarged. It is as small as is consistent with health. The upper border of the spleen cannot be determined, on account of its dulness merging with that of the lower part of the left lung, but its lower edge does not go below the margin of the free ribs. I therefore conclude that there is no enlargement of the spleen. There is no evidence of amyloid disease of the liver and spleen.

That being the case, and in view of the fact that the urine is copious, of low specific gravity, with small hyaline and granular tube-casts, and with only a trace of albumen, without a particle of œdema anywhere, and with this serious uræmic outbreak which I have just described, I conclude that, in spite of this long-standing lung-trouble, the renal condition is that of developing, contracted, granular kidney. It is a case of chronic interstitial nephritis. There may be some amyloid change, but I cannot think that there is a strongly-marked amyloid process.

I need not say that the prognosis is very grave. There are and have been marked dyspeptic symptoms. There is a serious pulmonary lesion, which is itself sufficient to cause great anxiety, and, in addition, there is reason to suspect that there has been long-standing renal disease. The woman has lost much flesh, her nutrition is seriously impaired, and we have lately seen how she hovers on the brink of terrible symptoms which may develop at any moment from a sudden congestion of the kidney. The prognosis is therefore not only grave, but it is anxious, for she is in danger of serious and urgent complications.

In speaking of the treatment of this patient I shall first refer to the treatment of the paroxysm. I do not wish to-day to spend time in discussing the nature of uræmia. Suffice it to say that the term is applied to that state of blood-poisoning and general intoxication which is connected with serious impairment of the functions of the kidneys. It may come on acutely from sudden congestion of healthy kidneys, or it may develop gradually from organic disease of the kidneys. In this patient the uræmia was very likely due to a sudden, severe, intercurrent congestion, grafted upon kidneys previously diseased. The attack presented the ordinary well-marked phenomena of this condition; that is, severe general convulsions, and, in the intervals, coma. The prognosis of a uræmic attack is based far more on what we suspect the previous disease of the kidney to be, than it is upon the severity of the attack. In the puerperal condition we have very serious uræmic symptoms, with violent convulsions and intense coma, and yet, in such cases, prompt treatment usually produces a cure. In acute nephritis there may also be most marked uræmic symptoms, yet the chances for recovery are good. It is when the uræmia comes on as the result of the gradual development of chronic Bright's disease that the prognosis is hopeless. You will therefore conclude that the fact that this woman reacted from the marked uræmic condition is a most favorable feature in the prognosis, and indicates that although her kidneys have long been diseased, yet the disease cannot be very far advanced, since the relief of the acute congestion which caused the terrible symptoms has allowed her to return so promptly to a state of freedom from nervous symptoms, with comparatively good renal action. I do not know

but that I have a more favorable opinion of her case since she has had this uræmic attack and recovered from it than I would have held if she had not had the uræmic symptoms. The treatment which was adopted was very simple. It consisted of one hundred grains of bromide of potassium with fifteen grains of chloral hydrate. After this had been administered, she had no more convulsions. She was next placed in a warm bath, and then removed and wrapped in a blanket. This caused profuse sweating, the coma rapidly passed away, and she soon became conscious. Since then there have been no severe nervous phenomena, only a few muscular twitches.

I next speak of the treatment of the chronic condition. This may be considered under three heads: 1, the relief of congestion; 2, the promotion of elimination; and, 3, the control of convulsive seizures.

The Relief of Congestion.—According as we believe the congestion to be intense, and the amount of organic disease small, are the promptitude and the severity of the treatment to which we resort. Suppose a woman is anasarcous in the ninth month of pregnancy; her urine grows more and more scanty, and is found to contain albumen. Suddenly she wakes up, complains that things look black, and immediately has a violent convulsion. Here there is reason to believe that the organic disturbance is at its minimum, and the congestion at its maximum. We therefore, without hesitation, bleed such a patient. I should under these circumstances bleed freely. I have never seen a patient where bleeding was not used do as well as where it has been copiously employed. I repeat the bleeding with the recurrence of the convulsions until a large amount of blood has been abstracted. When the œdema has been so great that I could not find a vein, I have opened an artery with most satisfactory results. In the same way, in the uræmic convulsions occurring in children after mild scarlet fever, or in adults with the development of acute Bright's disease, I would not hesitate to resort to actual depletion, although, as a rule, in these cases leeches or wet cupping over the kidneys is sufficient.

The Promotion of Elimination. — For this purpose sweating is better than purging. Sweating by the warm bath or warm pack is just as useful as that produced by jaborandi, and does not incur even the slight risk of cardiac depression which attends the use of jaborandi. On the other hand, it is more troublesome and slower in its action. If the symptoms are urgent, or the patient is heavy and cumbersome, or the bath is not ready, jaborandi may be administered by the rectum, or pilocarpin may be used under the skin. After sweating has been induced by the warm bath, it is well to keep up the action of the skin by the use of jaborandi. If the bowels have been constipated, the tongue coated, the abdomen distended, and the bowels evidently more or less loaded, it is well to give a purge of calomel, placing the powder dry on the tongue. If elimination is not secured by sweating, one drop of croton oil with fifteen drops of sweet oil may be placed on the tongue.

The Control of the Convulsions. — Although means are being employed to prevent the recurrence of the paroxysms, yet it is important to check the convulsion as soon as possible, for a hemorrhage in the brain may take place and the patient may pass from the uræmic coma into apoplectic coma, ending in death. If the convulsions are severe, the patient should be put under the influence of chloroform or ether, and the anæsthetic should be kept up until free elimination is produced or depletion has been practised. In puerperal convulsions where the seizures are so furious and the vascular tension so strong that there is special risk of the rupture of a blood-vessel and of hemorrhage into the brain, I should always resort to ether or chloroform. In the ordinary uræmic convulsions of Bright's disease, large doses of bromide and chloral, with the inhalation of nitrite of amyl when the convulsion is at its height, will usually suffice. In the present instance, bromide and chloral were in themselves sufficient to control the seizure.

We have now to treat a patient with chronic Bright's disease and chronic lung-trouble. With this pulmonary trouble and emaciation, I should be unwilling to treat her with such a rigid diet as I should resort to if she were in a better state of nutrition and were not the subject of chronic lung-disease. She will receive a light breakfast and supper, consisting of some form of mush, with cream or milk. Her dinner will consist of meat, fish, or oysters. Between each meal she will be given a

glass of milk; eggs will be avoided. The form of albumen found in eggs has seemed to me to dispose to an increased excretion of albumen. I prefer to this lean underdone meats and oysters.

I propose to give her cod-liver oil and bichloride of mercury. Iodide of potassium, which I should gladly give her, occasionally irritates the kidneys. I therefore prefer to use bichloride of mercury, beginning with a moderate dose and increasing it as the stomach will permit. I shall commence with one-fiftieth of a grain, slowly increasing to one-twentieth of a grain, immediately after meals. The cod-liver oil will be given during the alkaline stage of digestion, an hour and a half after meals. Iodine will be applied over the left chest as frequently as can be done without producing too much irritation of the skin. The action of the skin will be promoted by daily friction and the rubbing of a little oil into the skin.

I shall give you an opportunity of observing the effect of this treatment.

II.—SUBACUTE CATARRHAL NEPHRITIS.

As a companion picture to the patient who has just gone out, I bring before you this young woman, from whom we have obtained the following history. M. M., a resident of this city, a dress-maker, much exposed to the weather, but of good personal habits; married, and mother of two children, one of whom died of marasmus. One year ago she had a miscarriage. She has had the ordinary diseases of childhood, but was apparently in ordinary good health up to the time of the miscarriage. Since then she has never been well. Following the miscarriage she had a number of catarrhal attacks. She first had severe leucorrhœa, which lasted profusely for several months. Then she had gastro-intestinal disturbances, as manifested by loss of appetite, coated tongue, dyspepsia, and occasional diarrhœa. She next had inflammation of the mucous lining of the gall-ducts, with swelling and obstruction to the flow of the bile, causing catarrhal jaundice. This soon passed away, but her dyspeptic symptoms, with alternating constipation and diarrhœa, remained.

Three months ago the evidences of acute catarrhal nephritis showed themselves, and were quickly followed by œdema of the feet. The swelling extended, and within two weeks the entire body was involved, the swelling of the eyelids being so great that she could not open them. The dropsy has since subsided, and now is only found in the feet at evening and after walking, and in the eyelids in the morning, as is commonly the case in the moderate dropsies of Bright's disease. About the time that the œdema appeared, she had to urinate three or four times during the night, and had to relieve herself frequently during the day. The amount of urine passed each time was very small. It was high-colored, and sometimes looked as though it contained blood. She also had pain over the renal regions; but this was probably due to uterine disease following the miscarriage.

She was admitted about five weeks ago. At that time she had dropsy, and the urine contained a considerable quantity of albumen, granular and epithelial tube-casts, and occasionally a little blood. The quantity of urine has now come up to the normal, and indeed has gone beyond. It ranges between fifty-two and fifty-seven ounces in the twenty-four hours, and has been as high as seventy ounces.

Here is a case where the associated conditions of catarrh of a great many mucous membranous surfaces, of the vagina and uterus, of the gastro-intestinal canal, of the hepatic ducts, and of the renal tubules, the scanty and high-colored urine, frequent micturition, the large amount of albumen, the early, extensive, and persistent dropsy, indicate that there was acute catarrhal nephritis. Unfortunately, the acute attack was not treated vigorously, and it has now passed on to a subacute form, tending to the production of the large white kidney. The diagnostic points between this case and the one which you saw a few minutes ago are so distinct that I need not refer to them particularly.

This patient's general health is so good, and the disease so recent, that I think we may hope to bring about a complete cure. She must, however, be treated with extreme vigor throughout this winter. The thing which is above all others essential is that no recurrence of the congestion or catarrhal irritation of the kidneys shall be allowed to take place. No exposure to draughts, no getting the feet wet, no changes in the clothing, and no sudden cooling off while perspiring, can be permitted. She is now where she ought to be, in a well-regulated hospital, and, if she

possibly can, she ought to remain here during the coming winter. Her food will consist of farinaceous articles and milk, with meat twice a week. Moderate exercise, light gymnastics, and friction of the surface should be persisted in to maintain a healthy action of the skin. With this hygienic treatment, I should with confidence resort to the diuretic preparations of iron, expecting that under their use she would make a thorough recovery. This is the type of cases in which iron with diuretic alkalies, such as solution of the acetate of ammonia and bitartrate of po tassium, produces excellent results. She has from time to time taken considerable quantities of Basham's mixture. She has also taken a solution of bitartrate of potassium. At times, when the stomach was especially out of order, she has used bismuth and pepsin, and on one occasion, when the gastro-intestinal disturbance was very marked, minute doses of nitrate of silver and opium. If the patient remains with us, I shall show you the result of the treatment.

ORIGINAL COMMUNICATIONS.

CAN A MAN AFFECTED WITH SYPHILIS COMMUNICATE THE DISEASE TO A HEALTHY FŒTUS WITHOUT INFECTING ITS MOTHER?—CAN A MAN BEGET A SYPHILITIC CHILD WITHOUT INFECTING ITS MOTHER?

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A WIDE difference of opinion exists as to whether the fœtus in a pregnant woman, at any period during her term, can be infected with syphilis through sexual intercourse with a man having the disorder in some form, without either at the time of connection, or subsequently previously to her delivery, contaminating the mother, she being free from the malady before conceiving. Hunter believes that such may be the case;* so does Blegny;† and Nisbett and Laurence also hold the same opinion. Vidal‡ reports the case of a woman who had never, under careful examination, shown any signs of syphilis, but who gave birth to a child which died in six or eight weeks from congenital syphilis. The mother for many years after the birth of the child exhibited no symptoms of the disease. Plenty of authors might be quoted who maintain that syphilitic children may be born of women who are at the time of confinement, and subsequently, perfectly healthy, but they are mostly in "the long ago," and during the past twelve years the contrary opinion has prevailed among syphilographers. The later writings of Cullerier, Diday, and other Continental authors lean strongly towards the absolute belief that a syphilitic child must be born through an infected mother, and Sturges,§ an able and experienced authority, remarks that "whether future cases will be seen where the mother can be positively proved never to have had syphilis, and yet can procreate syphilitic children, is a point which no person can state with certainty. At any rate, all we can say now is that, with our present knowledge on the subject, the weight of evidence is against the theory that a healthy woman—by that I mean one who is free from syphilis—can beget syphilitic children."

Cases occurring in my practice during the last twelve years lead me to hold the belief that an affirmative answer may be given to the title of this paper, and in support of this opinion the following history is narrated:

Mr. A., a young married gentleman, the father of a healthy female child then three years of age, consulted me for a slight sore on the glans penis in May, 1878. As the ulcer bore unmistakable evidence of being specific, I charged him with loose conduct, and, upon my urging him to frankness in order that my treatment should rest on a satisfactory basis, he confessed having had intercourse with a kept-woman, in another city, which he had visited in his capacity of a travelling salesman, twenty-two days before seeing me. He declared his innocence of anterior illicit sexual intercourse, this being his first and only offence. Having been his professional attendant and also that of his wife for several years before their marriage, I knew both families well enough to believe him, and I was morally certain of the chastity of his wife. He was put under a mercurial course at once, although I do not believe that constitutional symptoms are either de-

* Traité de la Mal. Vénér., 1852.
† 1698, p. 101, quoted by Diday.
‡ Gazette des Hôpitaux, 1841.

§ Diday and Sturges, Hereditary Syphilis, p. 23. William Wood & Co., 1883.

layed or modified by any form of treatment between the appearance of the primary lesion (chancre) and the earliest secondary manifestation. My object in thus acting in his particular case was to make a mental impression on him in furtherance of my purpose to prohibit sexual relations between himself and his wife; and such had not taken place since his return from the trip. I explained to him the inevitable result of intercourse during the primary stage, and agreed to avert any domestic trouble consequent upon action. Before leaving my office he informed me that in all probability his wife was then pregnant, as she had missed her catamenia, which should have set in just before he left the city on his unfortunate trip. She had always been "regular" to a day heretofore, and there was additionally morning nausea and other evidences which satisfied me from previous experience that his belief as to her condition was correct.

In a few days I saw Mrs. A., who was suffering from neuralgia, and, as she had lately been troubled with slight sciatica, I embraced the opportunity to prohibit sexual relations as being harmful at present, thus guarding both parties and averting suspicion. In six weeks secondary skin-symptoms were apparent in the father, and soon sore throat and mucous patches were defined. Cervical and inguinal adenitis were present also. His mercurial was increased to the verge of toleration, and in a couple of months his improvement was marked,—so much so as to make it a matter of difficulty to restrain him in his marital duties. Unfortunately, as the sequel shows, he at this time, when on another business trip, had a conversation with a medical acquaintance, who positively asserted that a man not having a chancre or other local lesion of the penis could not infect a woman, much less a fœtus, by sexual intercourse, as the semen, he argued, was shut out from the womb in case of pregnancy, and could be washed out of the vagina should the female not be pregnant. The result of this confab was that upon his return home before seeing me (which I urged him always to do, that I might keep him well under control) he had intercourse with his wife twice, and no ablution or other precaution was observed at either time. He owned up to this when he saw me, but strenuously insisted that no opportunity of contamination through kissing had taken place either then or at any time since his misfortune. In less than a year he was apparently free from constitutional defect, and no suspicion as to what had existed was known to his family or to his numerous friends. The baby, a boy, had been born in due time, but was evidently ill nourished and weakly. It had the wizened, old-man look of a syphilitic, although no perceptible lesion was just then apparent. The placenta was small, and, though not at all offensive, was easily torn, discolored, and so far from normal in appearance as to attract the nurse's attention.

The infant had "snuffles" within twelve hours, and in two weeks showed roseola, copper-colored spots, and ulceration of the soft palate and pharynx. It was placed under treatment, and gradually recovered. The boy is still alive, and, though free from perceptible taint, is weakly and totally unlike his elder sister. The "Hutchinson teeth" are not present. This much for syphilitic infection of an undoubtedly previously healthy embryo in utero.

In December, 1881, Mrs. A. was again delivered of a female child at full term, after a normal pregnancy. The after-history of this baby was that of its immediate predecessor. Within three weeks the child had coppery roseola, mucous patches, anal condylomata, and sore throat, with subacute iritis, all of which, however, gave way without much difficulty to mercurial treatment. I used in each case the bichloride in compound syrup of stillingia, the same preparation having previously *apparently cured the father*. The condylomata were washed with dilute Labarraque's solution and then dusted with calomel,—the best plan known to me. For a few times only a mild (twenty-five per cent.) mercurial ointment was rubbed into the cervical enlarged glands, but the plan, being dirty, was stopped.

To-day both the younger children are apparently well, though easily affected with coryza on exposure, whilst the elder sister is a young lady of excellent physique, notwithstanding having passed through severe scarlatina, rubeola, parotitis, pertussis, croup, and all other infantile and youthful complaints. Aside from spasmodic croup, the two syphilitic children have not contracted *any* of the above-noted diseases, although exposed to them all.

Was the father free from syphilis *before his marriage?* I have not the slightest hesitation in saying YES! I have been the family physician in his father's home for more than twenty years, and I have carried the boy and his brothers and sisters through all their ordinary illnesses. The grandparents are yet living, and are enjoying their extreme old age in perfect health. His father and mother are also perfectly healthy, and until he contracted the chancre *after* his marriage, and *after* the birth of a sound, strong girl, he was robust and free from taint of any kind. There is no scrofula, phthisis, or other defect in the family throughout the three generations now alive, and the family history in the past is good.

Was the mother of these children also free from syphilis before their birth? For precisely similar reasons I answer YES! I attended her mother at the birth of Mrs. A., and have known her intimately ever since. Her father was a strong and healthy man, and he died of pneumonia a few years ago. Her mother is still alive, and the family history on both sides is that of good, hearty, English blood of an old, reputable, and long-lived race. The lady herself, aside from occasional neuralgia, has been exceptionally favored with good health. The supposition of adultery is out of the question. I know her too well. She is a consistent Christian wife and mother, devoted to her family, beyond reproach or suspicion, and my only reason for alluding to this point is to exclude it as being in other reported cases of infection of the fœtus the probable or actual explanation.

With the history as given above it cannot be reasonably doubted that the fœtus —originally healthy—was infected with syphilis by its father at about the thirteenth week of intra-uterine life. The whole series of events was clearly traced,—it is rarely that a more complete history passes under the knowledge of the physician,—and hence I see no avenue of escape from the belief that a healthy woman (free from syphilis) may conceive and subsequently bear a syphilitic child which became syphilized in utero, and the mother may, notwithstanding this, remain after delivery free from constitutional taint. *Not the slightest sign of syphilis ever has appeared in Mrs. A., and I have watched her closely.*

As to the second section of our title, "Can a Man beget a Syphilitic Child without infecting its Mother?"

The birth of a syphilitic child in both instances, as above narrated, seems to answer the query affirmatively; but I desire to present the history briefly of two other families which have been under my care for several years.

Mr. C. consulted me for an attack of muscular rheumatism in 1872, which had confined him to the house for a week or ten days before I saw him, under the care of another physician, and, as he was not benefited by the treatment adopted, I discontinued it; but my own efforts were futile, though varied, until he was put under full doses of potassium iodide. He subsequently had other attacks, which always gave way to the iodide salt. One day he called my attention to the peculiar condition of his nails, which were copper-colored and continually dropping off, to be succeeded by new and apparently healthy ones, which soon, however, went the way of their predecessors. I had by this time become suspicious of his condition, and, although he had a son some ten years of age who was in good health and free from syphilitic taint, I was satisfied that lues venerea was at the bottom of the difficulty. Careful investigation disclosed the fact that subsequently to the birth of the boy the father contracted first a chancre, then, some week or so afterwards, chancroid. Suppurating bubo ensued (doubtless from the chancroid), and in due time roseola of the face and chest, palmar and plantar psoriasis, with acneiform syphilide of the scalp, were presented. He lost nearly all his hair, had perforation of the palate, and finally nodes of the long bones and cranium. He went through a regular syphilitic siege, but emerged in pretty good condition nevertheless. At the time I took charge of him nothing would have attracted professional attention save a useless eye, which he stated was destroyed by a spark burning into the posterior chamber. I got his history partly from the dispensary to which he went under a feigned name, and also from a physician who had seen him as a private patient. Why he concealed the truth from me after getting well acquainted I do not know, for when I suggested the possibility of constitutional taint and the necessity of frankness, in his own interest, he admitted the justice of my inquiry, and would have been perfectly willing, he said, to own the truth had there been any ground for so doing. To the day of his death he denied all contagion, although I knew the truth for several years before that event.

About two years after taking charge of his family I delivered his wife of a dead child; and, without exception, that attendance was the most disagreeable in all my experience, nothing approaching it except a second edition two years later on in the same woman. The child was absolutely rotten. The placenta was a putrid mass which was almost pultaceous. How it performed its function to the last I cannot understand. The amniotic fluid was pea-green, slimy, abundant, and horribly offensive. I have a strong stomach,—I have never flinched from post-mortem examinations in subjects undergoing decomposition, or from duty which more than once required my close supervision in the burial of men and horses alike which had lain long on the battle-field in the sun of Virginia and Tennessee,—but the stench and sight of that infant's body and its concomitants almost turned me inside out. I vomited like a cholera patient, and I smelt worse than a skunk until a bath with hot water, carbolic soap, and a liberal raid on my wife's selection of Lundborg's essences rendered me presentable. For a week, despite antiseptic and

other measures, the person of the woman was extremely offensive to approach; and the nurse surely earned her money in that lying-in. The patient had, however, no subsequent trouble, and in ten days was downstairs.

She was confined again under my charge a little more than two years after this, and the result of her labor was substantially that above described, the child being livid, copper-colored, and green in splotches, not quite so flabby, and very large, weighing about, as estimated, twelve to thirteen pounds. Forceps were used by me to expedite the labor, as the shoulders were very broad, and I had to call a friend in to help me in the delivery after the head was born. The doctor who kindly assisted me has had a large obstetrical experience, and he agreed with me as to the syphilitic condition of the child, and the patient was also critically examined by him, at my request, to determine the question whether or not *she* had any evidence of constitutional syphilis. Another gentleman of very large experience took great interest in the case, and he also carefully examined the woman subsequently, with the same object in view. A third physician, well posted in venereal diseases, has added his opinion; and the united testimony of all is that *the woman is free beyond doubt from syphilis in any form, and has never had it.*

She has never since I became her family physician been treated for syphilis. She has taken nothing in the shape of medicine which could modify or eradicate syphilis: in fact, beyond a little simple expectorant, such as syr. prunus. virg., or a little citrate of magnesia, she has had no medication whatever. Her husband has now been dead a year (he succumbed to uræmic poisoning), and she is perfectly free from perceptible dyscrasia of any kind.

[Since writing this paper I have carefully examined her, and she is in every respect a strong and perfectly healthy woman.]

We have thus the history of a woman bearing first a healthy boy, then, through acquired syphilis on the part of her husband, she gives birth to two syphilitic children still-born, and yet she remains free from any discoverable constitutional defect.

I now present a third case, under a different condition, but nevertheless illustrating the same point.

Mrs. R., a stout, strong, and healthy woman, with a good, clear, family history, became pregnant two years after her marriage, and engaged me to attend her confinement. I have habitually looked after my pregnant patients for the last four or five months of their term, in order that any impending trouble might be averted, if possible, and, although not pertinent to the question under consideration, I may say that through this care I have been able to protect several patients from a repetition of convulsions, serious dropsy, and like complications which had, under another physician in former labors, nearly carried them off. About the sixth month of gestation, threatening of abortion set in, which was controlled by rest and viburnum prunifolium for a month, but at last she miscarried, and the fœtus was plainly syphilitic. Subsequently to this I saw her through three other premature confinements, the last event calling me out on a hot summer night, through a drenching storm, three miles from home, in the East Park. The product of each conception was undoubtedly syphilitic, and, as the husband had come under my charge for urethritis once or twice during these years, I interviewed him as to the past, and cautioned him against further experimentation in the culture of "avena sativa" of the wild variety. He had contracted syphilis early in life, but was until after his marriage in presumably good health, beyond wandering neuralgic pains, which at first were attributed to exposure in his business, which was out of doors and at night. Grave lesions of the nervous system, however, gradually developed, and he is at present well advanced in progressive locomotor ataxia.

Despite the fact that the husband is thoroughly syphilized, *the wife is in apparently perfect health!* Here we have four instances of the fœtus being retained for from six to seven and a half months, and, although in each instance it was clearly syphilitic, the mother *did not* suffer through the utero-placental circulation. Besides these definite miscarriages, she "missed her courses" several times prior to her first admitted pregnancy, and was "too unwell" next month,—abortions beyond question.

The difference of opinion as to the etiology and semeiology of syphilis will probably never be reconciled by competent observers, for here, as elsewhere, "doctors will disagree." I have never believed, as taught by a surgeon of world-wide fame, that scrofula is only a variety of syphilis; I do not believe that syphilis is at the bottom of so many obscure diseases, particularly those neuroses which are intractable; nor do I believe that syphilis once acquired is never eradicated. It would be a bad outlook were all posterity to suffer for the sins of the parents to all eternity through hereditary maladies which sap the constitution as does the "French disease:" in

fact, if syphilis is so common as some would have us believe, and as difficult of annihilation as others teach, the nation would before long die out. Plenty of patients whom I treated for constitutional syphilis fifteen and more years ago are now perfectly well, with healthy and well-developed families.

My reading and observation for several years past have led me to believe, as stated in the outset of this paper, that the majority of syphilographers contend that in all cases children born syphilitic are the progeny of syphilitic *mothers*, the father not necessarily being diseased.

The three cases herein noted show, to my mind at least, that, first, a fœtus carried by a non-syphilitic mother and begotten by a non-syphilitic father *can be syphilized* before birth, and the mother *escape constitutional taint;* and, second, that a healthy woman may conceive through a syphilitic husband, give birth to a *syphilitic child*, and, notwithstanding, *escape constitutional taint.*

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REPORT ON THE PROGRESS OF DERMATOLOGY.

BY ARTHUR VAN HARLINGEN, M.D.

THE past three months, though not producing any work of the first importance in the department of dermatology, has yet been productive of a considerable number of papers and volumes of interest to the general profession.

A NEW TEXT-BOOK.

Among books, the most important, perhaps, is the text-book of Hebra the younger, which, though narrow in some respects, and showing the isolated and stationary character of the Vienna school of to-day, yet contains much that is original and progressive. Hans Hebra adopts the new classification of Auspitz, which I am inclined to think an improvement on the classification of the elder Hebra, even as modified by the American Dermatological Association. It is, in fact, to a certain extent, an extension of this in accordance with the enlarged knowledge of skin diseases which obtains at the present day.

Hebra adopts nine general groups of skin diseases, seven of which rest upon an etiological and two upon a pathological and anatomical basis. They are as follows: Class I. *Simple inflammatory dermatoses*, including erythema, eczema, the *animal* parasitic diseases, miliaria, acne, sycosis, furuncle, carbuncle, erysipelas, etc. Class II. *Angio-neurotic dermatoses*, including the acute exanthemata, medicinal eruptions, urticaria, erythema, pemphigus, acne, rosacea, gangrene, etc. Class III. *Neuritic dermatoses* (tropho-neuroses of the skin), including herpes in its various forms, with the ordinary tropho-neuroses. Class IV. *Dermatoses with partial congestion*, including cyanosis, œdema and myxœdema, elephantiasis and scleroderma, idiopathic and senile gangrene, ainhum, etc. Class V. *Hemorrhagic dermatoses*, including purpura. Class VI. *Idioneuroses*, including hyperæsthesia, anæsthesia, neuralgia, pruritus, prurigo (!), and cutis anserina. Class VII. *Anomalies of development of the epidermis and its appendages*, including ichthyosis, lichen pilaris, cutaneous horn, corns and callus, psoriasis, lichen ruber, pityriasis, hypertrichosis, alopecia, onychia, seborrhœa, milium, hyperidrosis, chromidrosis, anidroses, etc., nævus pigmentosus, chloasma, leucoderma, canities, verruca, epithelioma (!), and carcinoma (!). Class VIII. *Anomalies of development of the corium*, including lupus, scrofuloderma, lepra, fibroma, molluscum, keloid, neuroma, sarcoma, etc., together with atrophic lines and spots, and scleroderma. Class IX. *Vegetable parasitic affections.*

It would consume too much space were I to give an outline of the contents of the work, but I may say that the descriptions of disease are generally very clear and the illustrations quite numerous. Comparatively little credit is given to American writers on skin diseases, which is to the detriment of the work, and especially its therapeutic part. This is indeed ridiculously inadequate.

DIAGNOSTIC AND PROGNOSTIC VALUE OF THE INITIAL RASHES OF SMALLPOX.

Dr. McNeill, of Colonsay (*Edinburgh Med. Jour.*, September, 1883, and succeeding), says that these rashes are rarely met with in unvaccinated subjects. They usually appear before the physician is called in, and cause so little inconvenience that the patient is sometimes unaware of their presence. They have frequently been mis-

taken for the coexistence of measles or scarlatina together with the smallpox.

McNeill divides the initial rashes of smallpox into the erythematous, the petechial, and the petechio-erythematous. The petechial rash usually precedes the ordinary smallpox eruption by a period varying from some hours to three days. In some cases it may be the first symptom of the premonitory stage. The petechiæ reach their fullest development in about three days, after which they slowly disappear. The site chosen by this rash is characteristic, — being almost invariably the lower part of the abdomen and the groins to an inch or two below Poupart's ligament. More rarely it extends up over the trunk to the nipples and axillæ.

The erythematous rash presents the usual features of erythema, but the redness is sometimes uniform, like that of erysipelas, at other times mottled, like that of scarlet fever, and in other cases in patches and crescents, like measles. The erythematous rash appears from one to four days before the outbreak of the regular smallpox eruption. It usually lasts from one to four days, fading gradually through lighter shades of the same color, and leaving no pigmentation. The extensor surfaces of the thighs and legs are most commonly affected, though the whole body may be involved.

The petechio-erythematous rash is more widely diffused than the petechial form. Sometimes, in addition to the rash upon the body, the forearms and the legs below the knees are covered with a bright-red erythematous rash, which disappears on pressure.

No reason can be alleged for the occurrence of the initial rash in any given case, the only uniform condition noted being its occurrence in vaccinated persons.

As regards the diagnostic value of the initial rashes of smallpox, their peculiarities are given by Dr. McNeill as follows:

1. Persons under 10 are rarely affected. This will exclude a large number of cases of scarlet fever, measles, etc. 2. The initial rashes are commoner among vaccinated than among unvaccinated persons. 3. The locality and appearance of the initial rashes as above described should aid in distinguishing them from the petechial rash of smallpox and the rashes of scarlet fever and measles. The purely erythematous rashes of smallpox, however, closely resemble those of the other affections named. 4. The accompanying symptoms, the fact of previous attacks of the suspected disease, or the simultaneous existence of a prevailing epidemic of a given disease, must all be taken into account.

McNeill's conclusions as to the prognostic value of the initial rashes of smallpox are as follows:

1. A purely erythematous rash presages a lighter attack of smallpox than any other or than no initial rash. 2. A petechial rash indicates twice the chance of a confluent or semi-confluent eruption of smallpox to follow, but the ultimate result will be about as favorable as in general cases. 3. A petechio-erythematous rash indicates that the case is thrice as likely to be severe as an average case, and the termination is more likely to be unfavorable. Dr. McNeill also thinks that the darker the redness and the more persistent on pressure, the more likely it is to be severe; but if a pure petechial rash is on one part of the body, as the abdomen, and a pure erythematous rash on another, as the arms, the prognosis is more favorable.

HERPES AND HERPES ZOSTER.

A number of papers on herpes and herpes zoster have recently appeared. Dr. Paul Fabre has published a volume of two hundred and fifty pages on herpes zoster, in which a very complete abstract of the present state of our knowledge on this subject is given. He gives notes of forty-one cases coming under his personal observation. Fabre defines herpes zoster as "an eruption arranged in patches of various number, shape, and size, separated by intervals of healthy skin, and seated along the course of a nerve." He prefers not to define the eruption, because, as he says, it varies so greatly in different cases and at different periods. He considers the erythematous patch as the essential lesion because it is always present, though vesicles may or may not appear in the course of the disease. Fabre divides the double zosters into—1, those which are complete and symmetrical, forming a girdle; 2, those which are multiple but not symmetrical; and, 3, bifid zoster, when several branches or nerves are simultaneously affected, as when the eruption is found over the scapular region, on the chest, and down the arms. In reality, however, these all

proceed from one root. The chief interest of the work lies in the notes of cases reported and referred to, as, for instance, those which go to prove a lingual and guttural herpes zoster. Herpes buccalis, labialis, progenitalis, are not included under the head of herpes zoster by Dr. Fabre.

Fabre has studied the etiology of zoster very carefully. He shows that it occurs in both sexes and at all periods of life alike. The causes actually known to produce herpes zoster are cold, neuralgia, moral impressions, traumatism, and tumors which may irritate or compress a nerve. As to symptomatology, he goes extensively into this branch of the subject, and gives many interesting cases coming under his own personal observation. In one of Fabre's cases a patient affected with abdominal herpes zoster suffered painful cramps and true clonic convulsions in the sacro-lumbar muscles and in the right anterior portion of the abdomen, while another suffered paralysis of the deltoid, which was ameliorated on the outbreak of the eruption. In adults pain causing insomnia is not infrequent, while in children pain is unusual.

Fabre describes three varieties of zoster: 1. the acute febrile form (which has sometimes caused authors to describe zoster as an exanthematic fever); 2, a subacute or apyretic form,—the common variety; 3, a chronic variety, excessively rare, and, in fact, probably a form of recurrent zoster, of which, as is known, only half a dozen examples have been described. Want of space prevents a further résumé of this interesting work, a tolerably full analysis of which will be found in the *Annales de Dermatologie et de Syphiligraphie*, t. iv., 1883, p. 603.

Leloir (*Union Méd.*, 1884, p. 1014) describes a form of herpes which he calls "black herpes." His case was that of a pregnant woman who displayed a bluish patch of disease over the left crista ilii, about two or three inches in diameter, accompanied by fever, and which developed into gangrene. The fever lasted through confinement, which took place a few days later and was followed by a copious eruption of blackish herpetic vesicles upon the lips. The fever continued several days,—the patch on the hip meanwhile sloughing,—at the end of which time the patient died in sudden collapse.

Leloir considered the herpes in this case as an eruptive fever, and thinks that when the herpetic eruption appears on the lips in pneumonia a similar process is going on in the lung.

A curious case of gangrene in connection with herpes is here called to mind, where herpes phlyctenoides of the face was accompanied by gangrene of the mucous membrane of the mouth and pharynx. (Hallopeau and Tuffier, *Union Méd.*, 1880, p. 956.)

A similar case, except that the buccal lesions did not go on to gangrene, has recently been reported by the writer (*Polyclinic*, April, 1884). Here a violent attack of herpes of the face was accompanied by herpes of the buccal mucous membrane and of the tongue. The fact is that herpes, in spite of the amount of attention it has received, has not yet been studied sufficiently, and there are many mysterious cases of the affection, the causation of which remains to be explained.

ICHTHYOL IN SKIN DISEASES.

Ichthyol is a peculiar preparation of a tar-like character, prepared by treating with concentrated sulphuric acid the product of a dry distillation of a bituminous rock containing fossil fishes and found in certain districts of the Tyrol, and which has been introduced into the pharmacopœia of skin remedies by Unna, of Hamburg (*Mon. Heft f. Prakt. Dermat.*).

As found in the market, it is a sort of ointment, of the consistence of vaseline, forming an emulsion with water, mixing readily with vaseline and oils, and partly soluble in ether and partly in alcohol, while entirely soluble in a mixture of the two. Ichthyol contains about ten per cent. of sulphur, together with oxygen, carbon, hydrogen, and a minute quantity of phosphorus. The peculiarity of ichthyol, as compared with other compounds containing sulphur, is that the latter cannot be separated without destructive decomposition of the ichthyol.

Unna has found this remedy a useful application in psoriasis, especially valuable because no irritation of the surrounding skin was induced, even after prolonged rubbings. He uses the ichthyol in these cases alone and in its full strength.

In circumscribed moist eczema of the hands and arms, Unna has found ichthyol particularly useful, though he has also had

good success in the treatment of cases of papular itching, eczema, and also in the eczema of infancy. In the eczema of adults, ichthyol is employed in a fifty- to forty-per-cent. mixture with vaseline or adeps. For children a ten- to twenty-per-cent. ointment is appropriate.

Unna has found that in this preparation, as in all sulphur preparations, the best effect is obtained by beginning with a strong preparation and gradually diminishing the amount of sulphur as the eczema yields. From the first ichthyol acts as an antipruritic and as a sedative of pain. It seems to combine the virtues of carbolic acid and sulphur.

Ichthyol alone, among all sulphur preparations, can be mixed with mercurials and lead without decomposition taking place. The fact that it emulsifies with water permits ichthyol to be easily washed off,—a great advantage. One serious objection to ichthyol is its vile smell. Patients get accustomed to this, however.

Favus and acne rosacea have both been treated by Unna successfully by means of ichthyol. Altogether, the remedy seems worthy of a further trial; and, as I believe it can be procured of importers in this country, there is no reason why its value should not speedily be tested.

CICATRIZATION AND CORNIFICATION OF THE SKIN.

Unna (*Berlin. Klin. Wochenschr.*, August 27, 1883, and *Medical Record*) has also made a special study of the two processes involved in cicatrization of the skin. One of these pertains to the growth of granulations belonging to the connective tissues; the other is the formation of a corneous envelope, which appertains to the epidermis. Sometimes these two processes fail to work in harmony, the result being either that, while the granulations are abundant or even exuberant, the pellicle of epidermis fails to complete the healing; or, on the other hand, the granulation process is delayed, while the epidermic layer tends either to close over a cavity, or, by folding in upon itself, to produce callous, indolent edges; or, finally, it may dip down to the bottom of the unfilled excavation, with the result of a depressed cicatrix.

Unna thinks that these processes are so dissimilar that what would promote one might delay the other, and *vice versa*. He therefore recommends the employment of certain local remedies up to a given point in the healing of a sore, and then that the process should be favored by a change to a "cornifying" application. Among the remedies which have a beneficial influence in promoting granulation, while tending to destroy or dissolve the corneous layer, may be ranked many of the so-called antiseptic remedies,—*e.g.*, carbolic acid, salicylic acid, corrosive sublimate, the bromine and chlorine compounds, acetic acid, permanganate of potash, thymol, pyroligneous acid, peroxide of hydrogen. Though in the dilute form in which they are generally used their "keratolytic" properties are not often injuriously developed, nevertheless Unna thinks their influence always more or less unfavorable to corneous growth.

Other remedies, though not unfavorable to cornification, are yet of no value in promoting this process. Such are iodoform, boric acid, benzoic acid, acetate of aluminium, the balsams, subnitrate of bismuth, and oxide of zinc.

There are a few remedies, however, which, in Unna's opinion, seem to have the property of promoting the growth or regeneration of the stratum corneum. Pyrogallic acid, surprising to say, is regarded by Unna as such a remedy. He says that, while it destroys the deeper tissues, it regenerates the cuticle. Sulphuretted hydrogen, which is produced when the sulphur alkalies or sulphur itself are used, has likewise a cornifying influence. Sulphur ointment is a convenient method of application. This reduces exuberant granulations even better than nitrate of silver. Sugar, chrysarobin, tar, and especially linseed-oil, may also be mentioned as keratoplastic,—the latter in particular, as evinced in the Carron oil so largely used for burns. The latter often heals when fats are not borne by the skin.

Finally, Unna calls attention to the importance of desiccation as a factor in cornification, pointing out that many remedies locally applied promote this process through abstraction of water. Many of the dusting-powders act in this way, though often considered inert; also such astringents as alum and tannin. The rubber bandage and other compressing agents aid cornification by reducing the amount of watery fluid in the skin and subjacent blood-vessels.

THE TREATMENT OF THE VEGETABLE PARASITIC DISEASES OF THE SKIN.

In a report on a new remedy in the treatment of ringworm, Dr. Ernest Besnier expresses himself as having no faith in parasiticides as such. He believes that there is no known drug which will kill the vegetable fungi inhabiting the skin without injuring the structure of the skin itself. The action of the so-called parasiticides is simply to promote desquamation, and the more rapidly desquamation goes forward, the more quickly is the fungus mechanically removed by the falling epithelial masses in which it is embedded.

CASE OF UNILATERAL SPASM, HEMIPLEGIA AND APHASIA, FOLLOWING MEASLES IN A CHILD TWO YEARS AND FOUR MONTHS OLD.

Read before the Philadelphia Neurological Society

BY LAMBERT OTT, M.D.,

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BOY aged 2 years and 4 months, healthy and intelligent, talked well for one of his years. April 2, he had a mild attack of mumps. Seven days later he was seized with premonitory symptoms which ushered in a well-defined attack of measles. Other children in the same house were just convalescing from this exanthem. No physician was called, and nothing more was done than keeping him warm in bed and administering an occasional purgative. On the tenth day after the beginning of the disease, the mother states that he felt well, was laughing and playing in bed, but, instead of the dull-yellowish stains which remain after the papules of measles have faded, his skin was dotted with spots of a purplish hue. The same morning the mother noticed a twitching of the muscles of the right eye and right side of face, and soon after similar movements of the right arm and leg. He remained conscious during the spasm, but was unable to speak, motioning for anything he wanted. After the spasm had existed an hour, the leg ceased to move, and was found to be paralyzed. Half an hour later the arm-jerk stopped, and the limb lay powerless by its side; the face-movements continued only a few minutes after the arm became quiet, when the side of the face was observed to be paralyzed. While the right-sided convulsive seizure was going on, the left arm and leg were affected with choreic movements, which subsided soon after right-sided paralysis was manifest. Two hours after the first appearance of the spasm, I noted the following condition: ptosis of right eye; no change in pupils, and no disturbance in movements of eyeballs. When he cried, the right side of the forehead remained smooth, while the left was markedly corrugated; no paralysis of tongue, but complete aphasia. I was unable to investigate the special senses, on account of the age of the child. Motion in the right arm and leg was completely paralyzed, sensation partially. He was conscious, and drank water with very little difficulty. The left side of the body showed no disturbance of sensation or motion, excepting occasional choreic twitching. The dread the child had of strangers prevented me from examining the heart. Temperature, 101°; pulse, 120; respiration, 20, and very irregular. Some bronchial catarrh.

Second day. Temperature, 102°; pulse, 130; respiration, 40. Had no vomiting; intelligence remained good; tongue dry; passed water and fæces involuntarily. During the next six days his fever remained high, cough increased, and evidences of catarrhal pneumonia developed.

About the ninth day the mother called my attention to a bulging of the right side of the chest, resembling the deformity produced by a large pleuritic effusion, with a marked lateral curvature of the spine, the convexity being towards the right side; percussion of the lung of this side elicited hyper-resonance and auscultation, normal breathing with prolonged expiration. The chest-deformity was apparently due to contraction of the muscles of the left side. He had conjunctivitis of right eye and dribbling of saliva from the right angle of the mouth. Was very irritable, and often carried his hand to his head and moaned. Urine examined and found normal. The choreic movements of left side returned, but were not so marked as at first.

In the second week the muscles of the face began to regain power.

In the third week there were no marked changes in his condition, except a peculiar swelling and tenseness of the paralyzed leg, which persisted four days, and suddenly disappeared during one night; the next morning the leg was very flabby. Electro-muscular contractility was fair. In the latter part of the third week his head was drawn to the paralyzed side, the chin pointing to the left, showing the peculiar influence of the healthy sterno-mastoid and other neck muscles, which was pointed out to me by Dr. Eskridge. The muscles of the right side of the neck were flabby; those of the left side were hard and tense. Lifting the head would place it erect, but when unsupported it would fall into its former position. In the fourth week movements were noticed in the arm, and in the fifth week the leg began to regain power. He was now, for the first time, using a few monosyllables, as *ma*, *pa*, etc.

In the fourth month he walked fairly, used a few more words, especially the simpler ones.

In the sixth month of his disease his general health was good, and he was talking more, but only using such familiar words as children learning to speak usually employ. His gait was fair, and he was able to run, but there existed a marked weakness of the flexor and extensor muscles of the anterior part of the right leg and of the extensor muscles of the right arm.

I look upon the case as one of embolism of the left middle cerebral artery, obstructing the first branch, called the frontal external and inferior, which supplies the third frontal convolution (convolution of Broca), wherein resides the centre of speech; also the second and third branches, called respectively the anterior parietal of Duret, or the artery of the ascending frontal convolution of Charcot, and the posterior parietal artery or the artery of the ascending parietal convolution of Charcot. These two latter branches supply the motor centres of the extremities (Ferrier). The fourth branch, which supplies the angular gyrus, was probably not obstructed, as vision remained apparently unimpaired.

The motor centre of the facial muscles occupies a region in close proximity to those of the extremities, which is also supplied by branches of the middle cerebral artery.

There are some marked peculiarities in the case.

First, the age of the patient,—two years and four months; second, there was no loss of consciousness, which Hamilton says is the exception; in most cases there is either partial or complete loss of consciousness; third, the disturbance of conformation of the chest on the ninth day after the spasm; fourth, the falling of the head to the paralyzed side twenty days after the spasm. Whenever he had a good night's rest, he was able to hold his head erect for two hours; after that time it lay to one side.

The order of recovery of the paralyzed parts was as follows. (First, it is well to recall that the lower extremity lost power first, next the upper extremity, then the face, and later the neck and chest.) In order of recovery, the face, neck, and chest showed the first signs simultaneously, then the upper extremity, and next the lower extremity. When considerable power had been regained, quite noticeable yet was the weakness of the extensor muscles of the forearm, which gave the hand the peculiar position that resembles the wrist-drop of lead-palsy.

Most interesting of all was the occurrence of aphasia. Here an active little boy, twenty-eight months old, who talked connectedly and as well as usual for one of his age, was suddenly stricken with unilateral spasm, followed by hemiplegia and total loss of the power of speech. His intelligence did not wane one whit during the whole trouble. When thirsty, he protruded his tongue against the upper lip. If the parents told him the doctor was coming, he immediately manifested great fear, and beckoned for his mother to come near him. If he wanted some article in a distant corner of the room, he pointed his finger at it and began to whine. When they put their hands on the wrong article, he intensified his whine, by which they understood it was not what he wanted. As soon as they touched the desired object, a smile came over his countenance.

In the fifth week he spoke his first words, "pa," "ma," and "no." Later, other simple words were added to his vocabulary. The mother, a woman of experience, having had eight children, made a remark which struck me very forcibly, that it seemed as if he had to learn to talk over again. At no time did he misapply a word, as calling a "chair" a "table." When once he knew a word and its application, he always used it afterwards. At this date (nine months after the attack) his speech is disconnected. If he desires to express a thought, he can make a good beginning, but is unable to finish. For instance, he wants to use the sentence, "Katie, get my hat in the other room;" he can only say, "Katie, get my hat——" For the rest of the sentence he uses signs. His being unable to finish a sentence is not that he did not know the word "room," for when used otherwise he had no trouble in recalling it. When he used three or four words in succession, his speech-powers seemed to come to an end.

THE *Medical Index* is the successor to the *Kansas and Missouri Valley Index* and the *New Medical Era and Sanitarian*. It is a monthly, two dollars per year. It is published in Kansas City, is well edited and neatly printed, and, taken altogether, is a highly creditable and representative journal.

A CASE OF OVARIOTOMY.

BY LEMUEL J. DEAL, M.D.

MRS. E. S., now about 31 years of age, was married when quite young,—about her sixteenth year. She had one child two years later. She was in good health until about eight years ago (1876), when she was treated for a severe attack of "inflammation of the stomach and the womb." There followed this for some time a marked prolapse of the uterus, and she was troubled at irregular intervals with what, from her description of them, appear to have been epileptic seizures. These continued, off and on, until the date of operation.

In March of last year (1883) she was taken suddenly with considerable uterine hemorrhage, associated with severe paroxysms of "bearing-down pains." The physician called very naturally diagnosticated a threatened miscarriage, and treated accordingly. Finding no relief, she sought other advice, when she was told that she was carrying a dead fœtus, and was treated for this until August, when an attempt to bring away this fœtus instrumentally nearly produced death.

She afterwards presented herself to Prof. Goodell, who diagnosticated an ovarian tumor. She passed into the hands of Dr. Foulkrod, of Richmond, who requested me to see the case with him, and who afterwards transferred the same to me for operation.

I found Mrs. S., whom I first saw on the 10th of December, suffering from attacks of severe neuralgia, proceeding from the left ovarian region, but at irregular times. These attacks had been scarcely, if at all, influenced by treatment. She had a large, distinct tumor, which I deemed to be a unilocular cyst, with some, though not marked, adhesions. It was readily moved, however, and was very firm and resistant. Abdominal circumference at this time was thirty-five inches.

Having determined to operate, I was unwilling to tap, and on January 14 I proceeded to remove the tumor, assisted by and in the presence of the following gentlemen: Drs. Cochran McClellan, Thomas H. Andrews, John H. Locke, John K. Foulkrod, Robert J. Kelley, T. Mitchell Chaner, S. Mason McCollin, and my office pupil, Mr. C. W. Millar.

Dr. Locke having given ether, I made the ordinary incision in the median line, which was afterwards enlarged to seven and a half inches. The tumor was reached, punctured, and grasped by the large trocar of Dr. Wells, and evacuated. The fluid was of the consistence of thin gruel and of a pea-soup color. The adhesions, which were mainly on the left and inferior portion of the tumor, were carefully separated, eight silk ligatures being found necessary. There was found a smaller cyst, which, however, was drawn out with the larger evacuated cyst without opening. The pedicle, which was thick, but very short, being not over one and a half inches long, was transfixed with a double silk ligature, each half of the pedicle tied tightly, and then tied as a whole. One small point was touched with Monsel's solution, and the pedicle was dropped into the cavity. After sponging the cavity out with a five-per-cent. carbolic solution, the wound was closed with silk sutures, iodoform sprinkled thickly over it, a pad of absorbent cotton placed thereon, and a soft flannel binder pinned over all. She was removed to bed, and reacted at once and well. Her recovery in its steady progress has been, to my mind, marvellous. There is absolutely nothing to note except the steady lowering of temperature and pulse to the normal.

The incision was made at 1.30 P.M., the last suture was tied at 3.15 P.M.,—making the duration of the operation one hour and three quarters. The patient received nothing for three days after the operation except water,—hot for the first thirty-six hours, and afterwards as ice. Milk with lime-water was given to her on the evening of the third day after the operation, and afterwards the beef peptonoids. The stitches were all removed on the eighth day, although I believe the wound had healed entirely on the third day. Her bowels were moved by use of an injection on the evening of the eleventh day; since which time the patient has been perfectly free from pain, quietly talking with her husband or nurse, and even reading. She is of a nervous temperament, decidedly emotional; but—and I believe it had much to do with the result—there seemed to be an utter absence of any fear of death.

RECORD OF SIGNS.

	Pulse.	Temperature.
Tuesday evening . .	150	100.5
Wednesday morning .	140	100.5
" evening .	106	102
Thursday morning . .	104	100.5
" evening . .	104	98
Friday morning . . .	100	100
" evening . .	106	101
Saturday morning . .	98	100
" evening . .	100	99

	Pulse.	Temperature.
Sunday morning . .	90	100
" evening . . .	100	99
Monday morning . .	98	98
" evening . .	116*	98

My especial thanks are due to Drs. McClellan and Andrews for their kind assistance and advice during the operation, and to Dr. Foulkrod, who, living much nearer to her than I, made her many visits for me, and to my pupil, Mr. Millar, who remained with her all night while there was any necessity; and, in fact, to all the gentlemen present, who kindly performed the duties requested of them in such a quiet and yet ready manner that it was observed by several that it would be impossible to have such an operation performed with less hurry or worry.

TRANSLATIONS.

THE PHYSIOLOGICAL AND THERAPEUTIC ACTIONS OF PAPAYOTIN AND PAPAIN.—Rossbach has recently published the results of his investigations made on these substances, from which it appears that there is the greatest difference in the activity of these preparations as found in the market. The preparation made by Christy, of London, possessed the strongest digestive properties; Merck's article is not more than one-half as active, while the papayotin prepared by Gehe, of Dresden, is almost completely inactive. It further appears that the addition of hydrochloric acid or phenol reduces the digestive power of papayotin, but even in four-per-cent. solution does not entirely destroy it; while ten drops of ammonia in ten grammes of a six-per-cent. solution of papayotin appears to have no effect on its digestive qualities.

Experiments as to the physiological action of these substances on living animals showed that their administration by the stomach facilitated digestion without (even when given in large doses of two to five grammes) producing any alteration in the mucous membrane of the alimentary tract.

Direct injections into the veins, as previously described, appeared to cause great development of micrococci in the blood, and were always fatal within five minutes by producing heart-paralysis. Autopsies of animals killed by papayotin showed an abnormal color of the blood; while the red blood-corpuscles never run together in rouleaux, and appear often paler than normal; while the blood-serum is often reddened.

In frogs, reflex actions are arrested five minutes after the administration, and the heart's contractions become very feeble; occasionally universal convulsions of spinal origin are produced.

Subcutaneous injections of small doses of papayotin (0.005 grm.) appear to have no effect. Larger doses produce within twenty-four hours a digestive softening at the point of injection, which spreads three to six centimetres in all directions. Rossbach believes that the papayotin is carried by the lymphatic vessels, digests their walls, and so gains access to the surrounding tissue. In doses of 0.05 grm., the nutrition of the skin is not destroyed, though the hairs fall out; and when the digestive fluid has been absorbed, the locality returns to its normal condition. This favorable result, however, only occurs when the papayotin solution contains small quantities of carbolic or boracic acid, or when it has been sterilized by repeated heating and the septic solution employed. When such precautions are not observed, abscesses are produced.

Larger doses (0.1–1.0 grm.) of sterilized solution produce digestive softening of the tissues without the formation of pus; but, since the nutritive vessels of the skin are destroyed, the latter undergoes dry mummification. No general effects were noted as following the absorption of papayotin so administered.

As regards the therapeutic application of these results, Rossbach calls attention to the following points: 1. Papayotin, administered internally, is perfectly innocuous. 2. For subcutaneous administration, only small doses of a sterilized solution must be employed. 3. When injected into the blood, papayotin acts as a paralyzing poison on the heart and nervous system. The use of this drug is applicable to the treatment of glandular tumors and cancers, where extirpation is contra-indicated. In croup and diphtheria, Rossbach recommends the use of the most concentrated solutions in severe cases, ap-

* Pulse-rise deemed to be due to irritation caused by stitches, which were then removed.

plied with a brush or allowed to flow through the mouth and nose. The drug may further be employed as a digestive assistant and as an addition to nutritive enemata.

As regards its application in the treatment of gastric cancer, skin diseases, and parasitic diseases, his investigations are not yet numerous enough to warrant any conclusions.—*Centralbl. f. d. Med. Wissen.*, January 5, 1884. S.

A Contribution to the Anatomy of the Centre of Speech.—Rüdinger has made a large number of examinations of the third frontal convolutions in the lower and anthropoid apes, in microcephali, deaf-mutes, and in human brains of different races, sexes, and cases of marked individuality; these investigations show that in all probability there is some connection between the lateral half of the frontal brain in the neighborhood of the opercular gyrus (Broca's region) and the ability of speaking, though he admits that a positive proof that the centre of speech lies in the third left frontal gyrus can only be proved by experiment. If, however, this portion of the brain had any function connected with other muscular motion or general sensibility, it should be well developed in apes and microcephali, in whom general muscular power and sensibility are normal; this, however, is not the case. Dr. Fischer finds that in apes and microcephali this convolution is merely rudimentary, and, while it is not rudimentary in deaf-mutes, it is, however, much less developed and complex than in cases of individuals marked by rhetorical power.—*Centralb. f. d. Med. Wissen.*, January 26, 1884. S.

Unusual Complications of Acute Rheumatism.—In a recent contribution to the study of acute rheumatic peritonitis (*Thèse de Paris*, 1884), Dr. A. Vivant carefully reports nine cases of peritonitis occurring during the progress of acute rheumatism, one of which occurred under his own observation. He concludes that (1) rheumatic peritonitis, of all the localizations of rheumatism, is the least frequent, but it is less rare than is generally supposed; (2) women are particularly predisposed to it; (3) from the point of view of morbid anatomy, the peritonitis often ceases at the period of fluxion, but it may terminate in a serous or even a purulent effusion in the peritoneum; (4) it is not always as benign as authors regard it, since cases of death are of sufficiently frequent occurrence.

Dr. Schmitt (*Thèse de Paris*) collates seventeen cases of rheumatic phlebitis, one of which was under his observation. From a study of the symptoms, he considers that for the most part the phlebitis is not truly primitive, but is really a thrombosis, due to hyperinosis of the blood. The condition occurs most frequently in the lower extremities, and especially on the left side. It may occur at any stage of the fever, and may give rise at any moment to pulmonary embolism, with all its terrible dangers and rapidly fatal effects.

Angina pectoris of rheumatic origin is the subject of a thesis by Dr. A. Martinet, based upon the reports of one original case and five collated. The author considers the rheumatic angina to be due to hyperæmia of the cardiac plexus, as first taught by Dr. Peter.—*Gazette Médicale de Paris.*

Splenic Engorgement in Leucocythæmia treated by Parenchymatous Injections of Fowler's Solution.—In the clinic of Professor Mosler, of Greifswald (*Gazette Médicale de Paris*), a man with an enormously enlarged spleen and leucocythæmia was treated by injections of Fowler's solution (1 ccm.), of which he had ten in eight weeks. Under this treatment the spleen diminished sensibly in volume. A caution is given against using these injections in hæmophiles. It is also recommended that preliminary to the injection the patient should take some remedy capable of inducing contraction of the spleen, and, after the injection, ice should be applied to the spot of puncture for several hours. [Perhaps it would be as well to apply the ice and administer quinine and ergot for a while before resorting to the injection. It seems that they might be just as efficient and less dangerous. Professor Kussmaul lost a case after an injection of sclerotinic acid into the spleen, apparently from penetration of one of the splenic vessels.]

Hypodermic Injections of Iron in Anæmia.—In the *Archiv für Experimentelle Path. u. Pharm.*, Dr. Glaewecke highly extols the subcutaneous method of administering the iron salts. He prefers the citrate of iron, and gives from one and a half to three grains, in the adult; in children, never more than half a grain.

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EDITORIAL.

IS EMBRYOTOMY JUSTIFIABLE WHILE THE CHILD IS LIVING?

IN an editorial upon the admirable address recently delivered before the Washington Obstetrical and Gynæcological Society by the President, Dr. S. C. Busey, a contemporary quotes with approval the following words of Dr. Barnes: "A law of humanity allowed by every creed, and obeyed by every school, tells us, where the hard alternative is set before us, that our first and paramount duty is to preserve the mother, even if it involve the sacrifice of the child."

We believe that exception may justly be taken with Dr. Barnes on this subject, both as to fact and inference. It is not at all correct to say that embryotomy, or the operation of killing the fœtus, solely in the interests of the mother, is a law of humanity; nor is it allowed by every creed; nor is it obeyed by every school. To vindicate the humanity of the medical profession,—what creeds allow, we do not here wish to discuss,—we would ask a brief consideration of the question from both an historical and an ethical stand-point.

Turning to our earliest medical works, we find that Hippocrates directs the mutilation of the body of the child *after death only*. He says, "Ὀχοσα δὲ τεθνεῶτα τῶν ἐμβρύων".*

Celsus says nothing about mutilating a living child. His words are, "*verum intus emortuo corpori*", etc.†

In more recent times the Arabian physicians appear to have been the only ones who countenanced or advocated the destruction of a living child for the sake of the mother. The celebrated Rodericus à Castro says, "puer tamen vivus dissecari nulla ratione debet, quamvis Avicenna, Ætius, et Moschio id præcipiant; *non enim licet unum interficere, alterius vitæ gratia*, sed implorato divino auxilio medicamentis insistendum."‡

A recent writer, and one most capable of judging, gives a different account of the ability of the celebrated Arabian physicians from that generally held and taught, and no doubt his criticism is in the main a just one. Certainly there is nothing to be found in the writings of the Arabian writers that would warrant recognizing them as authorities to guide our practice in the nineteenth century. Palgrave says,—

"The Arabs are not uncommonly supposed in Europe to have been, if not the authors, at least the restorers of the healing art. But this is a popular error. Whatever the Eastern physicians of Bagdad, or their Westerly brethren of Cordova, might know, was derived from translations of Hippocrates or Galen, from the Physics of Aristotle and the treatises of Celsus, embodied in Byzantine compilations and the works of modern Greece. These, rendered with more or less accuracy into the vernacular tongue, and in the hands of men who had, without exception, so far as I have been able to investigate, nothing of the Arab except that they wrote in Arabic (much in the way that a Prussian of Dusseldorf may occasionally publish in French), and that they professed the Mohammedan belief, became at once the base and the superstructure, the Alpha and the Omega, of the whole science; to this their successors added nothing, unless it be some scanty and inaccurate lists of Persian, African, or Egyptian herbs; and their confused and unscientific treatises have remained to the present day the *ne plus ultra* of Arab medical learning. But even their first glimmerings of science and of method were soon effectually closed and cross-barred by Islamitic immobility and its misplaced supernaturalism. The traditional sayings of Mahomet, whether really his or not, but which, at any rate, are little calculated to give the Prophet place among the ranks of those who can heal the body, were intermixed with or substituted for the formulas of Galen and the precepts of Hippocrates; and to deny or evade the hygienic theories of the Meccan camel-driver might render one suspected of heresy at the least, and bring down the most awkward consequences. The fated and all-pervading interference, for such Islam makes it, of the Divine Omnipotence came in to preclude research by reducing every phenomenon at once to the one immediate, universal, and arbitrary cause, and thus cut every knot instead of untying it. Moreover, autopsy and anatomical studies were held, and still are so, in horror, because a violation of the rights of Munkar and Nekeer, the grave-angels; while to insist on the healing or noxious qualities of this or that, appears a downright transfer

* In the 70th section of the first book on Diseases of Women. See Littré's edition, vol. viii. p. 146, and also the edition of the Sydenham Society, vol. i. p. 112.

† Celsus, lib. vii. c. xxix.

‡ De Universa Muliebrium Morborum Medicina, lib. iv. c. vi. (Coloniæ Agrippinæ, 1689).

made to the creature of an honor exclusively due to the Creator. This is no exaggeration. Not one of these ideas but I have heard fifty and a hundred times from orthodox and otherwise intelligent Muslims. Thus, without knowledge alike of the human frame and of the chemical pharmacopœia, precluded from experimental science and rejecting theoretical, they came at the very outset to a dead stand, and there to the present day they have remained, crystallized, one might almost say, in complacent and conscientious ignorance."*

In the *Dictionnaire de Médecine*, tome xi. p. 319, the article "*Embryotomie*," written by Desormeaux and Paul Dubois, says, "We shall not end this article without calling to mind that embryotomy, to which English and German accoucheurs often have recourse when nothing announces that the fœtus has ceased to live, and in the sole interest of the preservation of the mother, is practised in France *only when there is every reason to believe the fœtus to be dead.*"

We believe it would be more correct to say that the destruction of a living child in order to save the mother has never been allowed by the best men in our profession from the earliest times until now, except by Arabian, and German, and English midwives. At all events, it is as great a mistake to say it is "obeyed by every school" as to say "it is allowed by every creed."

We make these remarks not in a captious spirit, but because such doctrine as that taught by Dr. Barnes has much to do with the fearfully prevalent crime of fœticide. If it be taught as allowed by all creeds and obeyed by all schools that in order to preserve a woman's life her child may be destroyed, a woman may easily persuade herself that this may be done to preserve what she values far more than life,—her own honor, and the peace and social position of her family.

DURING the meeting of the American Medical Association in Washington the headquarters will be at the Arlington House.

* Narrative, etc., by William Gifford Palgrave, vol. i. p. 147.

REMEDIES FOR OBSTINATE HICCOUGH.

ELECTRICITY has been recommended in obstinate hiccough, and is often followed by prompt relief. The method of application is as follows: The spasm of the diaphragm is to be anticipated by a discharge of electricity passed through the chest from side to side; or galvanism may be used, by passing a distending current along the phrenic nerve, the anode being placed over the clavicle, the cathode just below the ensiform cartilage. A domestic plan which is often successful is to sip a glass of cold water, taking eight or ten swallows in succession without breathing. Another plan, which has been lately recommended by Dr. Henry Tucker,* is to soak a lump of sugar in cider vinegar and let it dissolve slowly in the mouth. Compression of the chest is advocated by Shaw,† of Cincinnati, who states that he has often succeeded in this by following Dr. Kinnaird's procedure,—namely, "Place the tips of the fingers of both hands in the position of complete supination against the abdominal muscles, at the lower and outer junctions of the epigastric with the hypochondriac regions. Now make firm and gradual pressure backward and upward against the diaphragm. This pressure should be continued for some little time after the diaphragm has ceased its spasmodic contractions, when the fingers should be very gradually withdrawn."

Dr. Ruhdorfer‡ reports a severe case of hiccough, lasting for three months, which morphia, given hypodermically, could only check for a few hours or days. It resisted all the usual remedies, such as quinine, alone and with extract of belladonna, tincture of castoreum, or tincture of valerian, in water or with aromatics, mustard poultices over the stomach, dry

* Southern Medical Record.

† From the Medical Record, in the American Practitioner.

‡ American Practitioner; from the Allgemeine Wiener Medizin. Zeitung.

cupping down the spinal column, chloroform, ether, zinc, bismuth, numerous emetics and purgatives. The patient dragged on for three months under various remedies, morphia being administered whenever a single attack lasted beyond eight hours. At last the attack became overpowering, and the hiccough was so loud that the patient could be heard outside the house, through two doors. She sat up in bed, supported by her parents. There were dyspnœa and cyanosis. The head was jerked in all directions, the pulse was small and frequent, the neck was distended. Dr. Ruhdorfer injected a solution of pilocarpin hydrochlorate (three centigrammes in a gramme of water). The hiccough was at once cured, as if by magic, and has never returned since.

NURSE-TRAINING SCHOOLS IN PARIS.

THE *Progrès Médical,* in a recent issue, while republishing some general statements contained in these pages upon the importance of nurse-training schools and the need of skilled nurses, kindly adds a note in which it directs attention to what has been done within a few years in France in this important matter. Our thanks are also due to Dr. Bourneville for his courtesy in sending a report of the last meeting for the distribution of prizes to the scholars of the municipal nurse-training schools of the Bicêtre, La Salpêtrière, and La Pitié, and for a copy in three volumes of the "Manuel pratique de la Garde-Malade et de l'Infirmière," second edition, which are in these institutions used as text-books for the students. These books are well printed and illustrated, and contain elementary scientific information, written in lucid, popular style, on anatomy and physiology, dressings and medicaments, and a dictionary of medical terms, which are useful not only for trained nurses, but also for mothers of families. From them we learn that, owing to the agitation of the subject and personal attention devoted to it by Dr. Bourneville, the schools for nurses were opened in 1878 at the Salpêtrière and the Bicêtre, and in 1881 at La Pitié, under the control of the municipal council; they are all in a flourishing condition, and, from the synopses of the lectures, the systematic instruction, and the questions required to be answered, it may be justly inferred that these schools are doing a great amount of good. If in this country we had fewer medical colleges and more nurse-training schools, the community and the profession would have cause for being sincerely grateful.

MEDICAL REQUIREMENTS OF PASSENGERS ON SEA-GOING VESSELS.

IN another column we present the full text of a bill prepared by the committee of the American Medical Association and introduced to Congress in accordance with instructions. The necessity for such enlightened legislation is becoming every day more evident; and this bill, if adopted, will go far towards correcting some flagrant abuses, and preventing unnecessary hardship to passengers in cases of sickness, by requiring proper hospital accommodations and competent medical attendance. If the allowance of air-space in each hospital seems small (eighteen square feet for each fifty persons), it must be remembered that vessels are not usually provided with as much spare room as the "Great Eastern," and, moreover, on a vessel capable of carrying two hundred passengers (with the officers and crew additional) this would give two rooms of six hundred and thirty cubic feet each as the minimum, which, with the abundant facilities for ventilation, would probably be sufficient for all ordinary demands. We hope that, if the bill be passed, it will not be allowed to become a dead letter, but will be enforced in spite

of the active or hidden opposition of the large steam-ship companies.

LEADING ARTICLES.

KOCH ON THE CAUSATION OF TUBERCULOSIS.

THE second volume of the Reports of the Imperial Board of Health of Germany, edited by the director, Dr. Struck, which has just been issued in Berlin, contains several important articles upon the relations of micro-organisms to disease. Dr. Robert Koch contributes one on the Etiology of Tuberculosis, written just before his departure for Egypt, which deserves careful study. Acknowledging that the results of clinical observation as to the communicability of tuberculosis have been inconclusive and uncertain, although suggestive cases have been reported, he claims that anatomical facts have established the truth of Buhl's theory of infection from caseous foci, and it is still further supported, among others, by cases of tuberculosis of the thoracic duct, observed by Ponfick, and in the veins, reported by Weigert. Experimental research has fully demonstrated (in the hands of Klencke in 1843, and later by Villemin and many others) the communicability of tuberculosis by inoculation. The doctrine having thus been established by concomitant evidence from clinical observation, anatomical facts, and clinical research, it became necessary to take the next step and inquire into the nature of the virus; the discovery of a micro-organism (the bacillus tuberculosis), with the study of its properties, has resulted, he says, in the accumulation of so much evidence, that all that the most extreme sceptic can now assert is that the bacillus is a concomitant and not the cause of the disease. In order to prove conclusively its causal connection, it remained to be shown, as in the case of anthrax, that the organism, after isolation and cultivation, could reproduce tuberculosis when inoculated in the body.

After this preface, he proceeds to describe the technique of the methods of examination and recognition of the bacillus tuberculosis, and describes the habitat and distribution of the bacilli in the nodules, which is not uniform or regular. In miliary nodules, bacilli are apt to appear both between and in the cells, which soon break up, and the bacilli then disappear. The giant cells are wandering cells which the bacilli penetrate and cause to become stationary and take on epithelioid and giant forms under the action of the parasite. When caseation or degeneration occurs, the bacilli soon disappear or break down into spores.

In human tuberculosis, both the acute miliary form and pulmonary phthisis, the bacilli were uniformly present in the cases examined. In the former they were discovered in the lungs, liver, and spleen, in the pia mater, in the ocular choroid, and elsewhere. In the latter they were found most abundantly in recent caseous infiltrations, and in the walls of rapidly-forming cavities, but most sparsely in the fibroid variety. They may be disseminated by the lymph, the blood, or by the inhalation of the contents from cavities into healthy portions of the lung, or by swallowing sputa. The occurrence of bacilli in the sputa may now be regarded as quite diagnostic. They also occur in the stools in intestinal tuberculosis.

In a third section the occurrence of the bacillus is described in tuberculosis of various organs,—ulcer of tongue, two; renal, four; one of bladder, and one of the uterus. In five cases of tuberculosis testis bacilli were sparsely found, and two cases of solitary tubercle of the brain. In various scrofulous affections, lymphoma, and in various tubercular, joint, and bone affections, bacilli were found,—even in spinal caries. In lupus the bacilli were scanty; it has been found that inoculation with lupus tissue produced tuberculosis in the rabbit.

Inoculation-experiments made upon the lower animals showed, in Koch's experience, that all warm-blooded animals are susceptible to the action of the virus, yet the resultant lesions vary in different species. In some, caseation is the main outcome; in others, early softening with suppuration occurs, without caseation. He noted also that the lesions of tuberculosis infection in various higher animals are apt to undergo calcification and caseation. In the farmyard fowl these degenerations may assume the appearance of large tumors filled with lime salts. "In spite of these morphological differences, the disease is in essence the same, and the bacillus is to be met with

in all its forms." He specially describes the seat and distribution of bacilli in tubercular disease of cattle ("Perlsucht"), of the horse, pig, goat, and sheep, of the fowl and monkey. He notes the rarity of spontaneous tuberculosis in the guinea-pig and rabbit, unless under conditions suitable for contagion. For, previous to experimentation on this subject, he had hardly met with the disease in the many hundreds of such animals examined, until some part of the laboratory was devoted to the creatures which were inoculated; then tuberculosis appeared among others which were not inoculated. The "spontaneous" disease differs from the "artificial" in these animals in being limited to a few foci in the lung, instead of having a wider dissemination. A section is then devoted to the artificial production of tuberculosis in animals and the variety of appearances produced. This portion of the work, which is most richly illustrated by many beautiful chromo-lithographs, closes with a summary, which may be thus briefly paraphrased: In all morbid products which, from their mode of growth, histological characters, and infective properties, may be regarded as truly tuberculous, certain rod-shaped bodies, reacting to special staining agents, are to be found. This is true of animal as well as of human tuberculosis, and the number of separate observations is large enough to infer that the association is constant. Even in the two exceptional cases in which the pus of tuberculous abscesses (one spinal, the other renal) contained no bacilli, the probability that the diseased source of the pus contained bacilli amounted almost to certainty. These bacilli have never been found in other diseases, and statements to that effect must be set down to erroneous observation or incorrect application of methods of research. The bacillus occurs in the very earliest formations; it seems to induce cell-accumulation, giant-cell formation, and ultimate destruction of these elements. The presence and number of bacilli are undoubtedly connected with the rapidity of the progress of the disease. These facts point to more than a merely concomitant relation, and necessitate the further study of the life-history of the bacillus, which can only be done by methods pursued in the investigation of other bacterial diseases, by isolation of the organism and its cultivation outside the body. To this subject he then applies himself, but space does not permit us to detail the methods employed for this purpose. After that he describes at length the infection experiments,—first, those made by inoculation with tuberculous tissues, and, secondly, those made with pure cultures of the bacillus. These latter include inoculation of the anterior chamber of the eye, of the peritoneal cavity, intravenous injection, and experiments of inhalation. We know the results of this research, and how upon it the doctrine of contagium vivum in tuberculosis has been based.

In the final pages of this monograph the whole bearings of these researches are summed up. The fact that the tubercular bacillus can only grow under certain conditions (in blood-serum and flesh infusions, and at a temperature above 30° C.), which are only obtainable in the living body, that it is in fact a true parasite, and not an occasional parasite like the anthrax bacillus, is so far encouraging as affording more hope from prophylaxis. Nor is there any evidence that a harmless, non-pathogenic bacterium can ever develop into this specific kind; but there is also little ground for hope that the virus can be "attenuated." The bacillus has been shown to retain its infective properties for very long periods, even in the presence of decomposition. Pulmonary phthisis and tuberculosis of the domestic animals are the diseases which maintain the contagium, and in phthisis the sputa form the chief medium of transference. No doubt the bacillus is inhaled with dust, and, like dust, may remain in the air-passages or be taken into the alveoli; but its further development depends upon many conditions, one of which is its slow growth. Under certain circumstances, when the bronchial mucous membrane is denuded (as in measles), or when, from adhesions, defective formation of chest-walls, etc., there is a tendency to stagnation of air and accumulation of secretion in parts of the lung, there is greater likelihood of the parasite taking root. But it is quite possible that the bacillus may sometimes gain entrance into the body in other ways,—*e.g.*, in water, since it has been found in the intestinal evacuations; and he believes cases of lymphatic tubercle are often due to the virus gaining entrance through abrasions. The second source of the tuber-

cular virus concerns its entrance with food, as in consumption of the flesh or milk of tuberculous animals. That this is far less frequently the source of human tuberculosis seems clear from the comparative rarity of primary tubercle of the alimentary tract, and it seems also, from facts of intestinal infection in cases of phthisis, that this requires the introduction of spores, which resist the action of the digestive juices more than the bacillus itself. The same applies to milk, and, moreover, this secretion only contains bacilli when the mammary gland is itself tuberculous, which is rare.

When the bacillus has gained entrance into the body, whether by wounds of the skin, by inhalation into the lungs, or by the alimentary tract, it excites cell-formation, and subsequent necrosis where it lodges; and the morbid process extends probably through the medium of the "wandering cells" of the tissue, until the action of the parasite they convey brings them to a stand; and wider extensions are readily explained by means of the lymphatic and blood-streams. The identity of the various forms of tubercular disease in man must be admitted; and, although positive proof is yet wanting, it is right to act on the doctrine that the human disease is identical with that which is manifested so variously among the lower animals. Differences in the manner of invasion, in the organs infected, and in the proclivity to the disease, must be attributed to individual predisposition, and to the conditions surrounding each case. Often such "predisposition" is explicable on anatomical grounds; and it is to be noted that the disposition to become the seat of the disease may vary at different periods in the same individual. As to heredity, for which little support is given in the rare occurrence of congenital tuberculosis, Koch briefly dismisses it as an argument against the infective theory, by asserting that it is the "disposition," and not the disease, which is transmitted. This infective theory, he repeats, is not new: it has only been confirmed by these researches. Its acceptance, and the evidence that tuberculosis is dependent on a parasite, demand energetic study of therapeutic and prophylactic measures, although on the former head there is less reason to hope for success than on the latter. But, although prophylactic measures are needed, the wide distribution of the disease requires that all endeavors in this direction should take into account social relations, and one must carefully inquire in what way and how far such measures may be carried out without undue disturbance and injury.*

Those who are interested in the subject particularly will do well to read the original report, which carries with it the conviction of the honesty and industry and ability of the author. *The Lancet* (from the columns of which we have freely drawn in this article), speaking editorially, says, "We are inclined to agree with Dr. Koch that the validity of his views is not to be shaken by clinical facts, since without any outrageous use of the imaginative faculty explanations are readily forthcoming. Not every one that is exposed to the virus of scarlet fever takes the disease. Some are proof against the poison; some do not offer a suitable soil for its development; or conditions which may favor its development in an individual at one time may be absent at another. There are undoubtedly dispositions to phthisis and inherited tendencies, but these do not disprove the fact that the real *disease* can only be acquired. The tubercular virus must be very ubiquitous, seeing how common is the malady and how little prepared we are to treat it as contagious. Every one is more or less exposed to it, inhaling it with the dust of the air; and the fact that many of those even who are the most directly exposed to it—as the officials of consumption hospitals—escape tells quite as much in favor of their lack of predisposition and their good general sanitary surroundings as against the view that tubercular disease is infective. As to the treatment of this plague, plainly the main lines must be in the direction of prophylaxis. It is idle to attempt to deal with the micro-organisms in their habitat. No inhalations of antiseptics can do more than check putrefactive change; they cannot penetrate to the recesses of the lung where the "tubercle" is advancing; and equally futile is it to try to kill the bacillus by remedies taken into the stomach or injected into the blood. The most that can be done is to improve the general nutrition, or to check the advance of the disease by changing the conditions that favor it. Let us honestly recognize this, and seek rather to prevent

* London Lancet, March 15, 1883, page 494.

individuals becoming tuberculous, and not attempt the impossible feat of slaying this microscopic parasite. Thus one direction in which prophylaxis will have to work will be to destroy the virus outside the body, to employ germicidal agents in the disinfection of the ejecta, and to use suitable precautions in dealing with the sick. To accomplish this without altering one whit the comfort and care bestowed upon the victims of the malady, and without introducing a real misery into social life, must be the next step taken by those who have apparently so conclusively shown the nature of the evils to be remedied; and that such is Dr. Koch's intention is shown by his remarks in the closing lines of his report."

We can but repeat the warning against the anti-parasitic treatment of phthisis, the adoption of which was due to a hasty and ill-considered application of the new theory of the etiology of consumption. It must be evident that, the bacilli being ubiquitous, the clinical problems—the prophylaxis and the treatment of phthisis—remain questions of the patient's nutrition, rather than of bacilli development and destruction. Tuberculosis, it would seem, is best prevented and treated by measures which shall increase the vital resistance of the organs and render the tissues of the individual an unsuitable soil for the reception and development of microbes of any description.

A deeper significance now becomes apparent of the celebrated clinical observation of Niemeyer, that the great danger of a consumptive is that he may become tuberculous.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

IN the absence of the usual keen east winds of this time of year in the British Isles, the death-rate has been very low, comparatively. There is some epidemic disease about, as measles and scarlatina, but their effect upon the Registrar-General's returns is slight. Bearing upon the question of the spread of infectious disease, I see that the Border Counties branch of the British Medical Association has presented an address to Dr. Michael Waistell Taylor, of Penrith, in Cumberland, on his retiring from practice in that town. In it reference was made to the fact that Dr. Taylor was the first person to link the spread of infectious disease with the milk-supply of a town. In his reply Dr. Taylor said, "You have referred to some observations on the history and etiology of fevers, and more particularly to observations on the propagation of fevers by milk. These, to me, present an old and curious story, reaching back to the year 1858, when these observations were first begun. After a time, it seemed to me that the discovery of these facts fell dead and flat and became wellnigh forgotten, for it failed in receiving corroboration from others, and I myself began to think there might have been some error in my facts or in the logic of my reasoning. But years rolled on, and twelve or thirteen years after I had the satisfaction myself of verifying the circumstance for the second time. Soon after fresh proofs came from many quarters, and it was the source of the greatest gratification to me to find my old problem corroborated by other observers, and that what had been regarded as a dubious occurrence came to be recognized as a positive and general law of infection in sanitary science." It was not, indeed, till the late Dr. Charles Murchison, the great authority on fevers, could trace an outbreak of scarlatina in Marylebone, some ten years ago, to the milk-supply, that Dr. Taylor's original observations were generally credited. Since then the world at large has wakened up to the fact that milk is a fluid which, from its composition, seems to possess the unfortunate property of carrying fever-infection (let them be germs, or bacteria, or what they may) with deadly certainty of its being received in an active infective condition. Anterior to that time the fact of milk carrying infection was known in my father's household. He brought home with him, from a patient, smallpox, which I, and afterwards my sister, took, though he never was ill himself. At the time scarlet fever was raging in the village. When I sickened, of course scarlet fever was suspected; but soon the eruption showed itself to be vesicular in modified smallpox, having, fortunately, been re-vaccinated a short time previously. The attack was mild, and so was my sister's, though the original patient had it in a very bad form. A family living in a cottage half a mile away from the village, and thoroughly isolated, used to come to our house for their milk. The children sickened, and, to the surprise of all, they also had smallpox (modified), and not scarlatina. The milk-supply was the sole communication between the two dwellings. Indeed, it is owing to Dr. Taylor's observations, and what came out of them, that the leading dairies of London are models of what dairies ought to be for cleanliness and the safeguards used to prevent the possibility of infection by the milk supplied to customers. In one case, however, in a very

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well known dairy, fever broke out along their route of supply, and careful investigation discovered that at an outlying farm in the country, from which milk was taken by this company, there was an outbreak of fever. These facts, instead of "what had been regarded as a dubious occurrence," are now generally recognized.

The shuffling of political cards sometimes leads to unexpected results, and one, if not the least curious, is the active interest manifested in the dwellings of the very poor at the present by the Conservatives, or party in opposition. The government thinks it time to extend the franchise, pretty certain that the result will be an addition to the Liberal ranks. The other side see this, and immediately find that their poor neighbors live in dens unfit for human habitation. "The poor ye have always with you," it is written, and, though times are bad and trade slack, the loaf is cheap, and the present winter has been a wonderful workingman's winter, for there has been no stoppage in the building-trade and no frozen-out gardeners perambulating the streets, as often is the case. It would seem it is hardly the necessities of the poor, but the necessities of political faction which cause so much attention to be given to the poor by the great land-owning class, which is distinctly conservative. Many peers own large tracts of land on which exist some of the foulest slums; but they retort, probably truly enough, that the ground-landlord has extremely little or no power over the tenants, in consequence of the practice of sub-letting which exists. Oddly enough, just at this very time the habits and practices of the upper ten are impugned by one of themselves,—viz., Lady John Manners, who accuses them of wasteful extravagance in dress and in food. As to the last, it seems that the first meal is a little tea and coffee with bread and butter, and in some cases a little brandy in the coffee, or even lemonade and brandy, to enable the patricians to get up and dress. At ten o'clock a substantial breakfast is served,—meat and sweets. Then, at two, comes a lunch of such solid quality as to entitle it to be called early dinner. At five there is tea, not a very heavy meal, and then at eight comes dinner, a long and elaborate affair. So much for the eating. What the amount of drinking is is not stated, but probably it is not great, as now it is not the wines so much as the solid food which makes up the cost of dinners. Such are the self-denying practices of a class who are penetrated, rather suddenly, it must be admitted, with a keen sense of interest in the housing of the proletariat. A commission has been started, on which the Prince of Wales has a seat, and, in order to enable him to go into the question thoroughly, his Royal Highness personally visited some of the poorest neighborhoods of Holborn a little time ago, in company with Sir Charles Dilke. Doubtless what he saw impressed him and will bear fruit. The poor live in very dismal surroundings, amidst dirt and squalor, many because they cannot afford anything better, others because the less rent they pay the more they have to spend in drink. The effects of these large palatial buildings, rising story upon story, taking their origin in Mr. Peabody's benevolence, have been no boon to the very poor. They cannot afford to live in them, and the rookeries pulled down to admit of the erection of those new buildings were the homes of many destitute who must crowd elsewhere. They must reside somewhere and have something which they call "home." And so Dives is going to investigate the condition of Lazarus when it is convenient to do so in order to hamper the operations of a Liberal government. Perhaps it may be of interest to some of your readers to know what we do for our poor in this country. We build large, airy, roomy workhouses in which the destitute can live when they cannot maintain themselves or do not choose to do so, and it is asserted that the guardians of the St. Pancras Union are sorely troubled with a lot of lazy scoundrels who live in their workhouse in idleness and who assert their inability to find employment outside. St. Paul's statement, "if ye will not work, neither shall ye eat," does not hold good there, evidently. For the sick there are parochial infirmaries, to which I can bear my personal testimony that the inmates are well cared for and treated kindly,—indeed, tolerably well spoiled, some might think. It is no great hardship to reside in these habitations; but then a large number of the poor would sooner die than enter their portals. There is the hateful, intolerable bath to be encountered first; then the order and cleanliness observed are scarcely to their liking. If there were an hour or two of the public-house and a drunk and a squabble to finish off the day, then these retreats would be more attractive, and the inmates would reconcile themselves to their lot with Christian resignation. But it is not likely the rate-payers and the authorities will oblige them quite so far as that: so they huddle together, not like pigs in a sty, but rather like herrings in a barrel, all sense of decency and modesty ground out of them by their surroundings. It is simply farcical to talk of morality under the circumstances. Animal pleasure is within their reach, and of that they avail themselves to the utmost. When sickness seizes them, there are the hospitals and the dispensaries supported by voluntary contributions, to which they can apply. There are also parochial institutions to which they can resort, where the parish finds the drugs and the medical advice, but whenever practicable they prefer the private charity, where no questions are asked. They are obviously poor enough to be fit objects of charity; so they keep out of the way of the parochial officials until the

end comes, when the parish doctor is summoned.

Say it is the father of a family temporarily ill: here a little help, and all soon gets right. But, under other circumstances, the relieving officer offers them "the house," instead of out-door relief. Say it is the husband broken down by hardship and drink, and the wife by partial starvation. It is useless to give them a dole and so permit of their existing on in dirt and misery,—no kindness to them at all. They must necessarily be ill under such circumstances. So it is decided they must go into the house. Not they; they are not going to be parted; they are man and wife, and at this critical moment evince a mutual attachment of which they at other times would scarcely be suspected. They will not be parted; they'll do somehow. And so they perish like beasts in their lair. Or say one of a poor family is ill with consumption and about to die. Sooner than go to the parochial infirmary, they will move heaven and earth to scrape up money for a cab,—perhaps a sister earns it at the sacrifice of her person, while the mother finds an in-patient's letter somewhere,—and off they set for a chest-hospital, where they mean to leave the invalid, hook or crook, so that she may not die in the workhouse. Talk of the importunities of the woman who wore out the endurance of the unjust judge; they are a trifle to those of an Irish family who are determined it shall not be said that one of them died in "the house." The harshness of Sassenach tyranny is exhibited to them, they feel, when they go away baffled, but they have the consolation that brother Tim is away with O'Donovan Rossa to get the dynamite with which the down-trodden Celt is going to revenge himself upon his Saxon oppressor.

The poor of London have their ways; but no one can deny that, if he has little religious feeling, when judged by ordinary standards, still he is a kindly-hearted fellow. One great trouble in all metropolitan institutions is the prevention of alcohol being brought in by relatives visiting an inmate on their periodical visits. And yet, out of their small earnings, a bottle of spirits means two days of hard unflinching work to obtain the money to buy it. Their kindliness to each other in this way, often neither good nor desirable, is marked, and their position often brings out good qualities little suspected. Bryant & May's match-girls are a feature of the East End. Initiated into the vices of maturity in childhood, she can hold her own in filthy language with the best of Billingsgate or Ratcliffe Highway; there is no word too foul for her lips. Into her private life it is undesirable to pry. Her ambition is to possess one of the red corded dresses which form their Sunday wear. For this she will save up for months, and when she has attained one her earthly happiness is complete. On Sundays she turns out with her young man to enjoy themselves, which means to stop at different public houses and drink more than is good for them, her "mate" allowing her a fair share of what is going, with a curious sense of honor. Betwixt these halts the great diversion is to chaff those they meet and exchange compliments in language of indescribable foulness. With this one day of recreation and an occasional holiday, she pursues her occupation from week-end to week-end. There is no hope for her; she could not get out of her position in life if she were to try her hardest; and she has no intention of trying. At last she aspires to marriage; and, having provided a wedding-ring as an outfit, the two are united, to go on as before, only she now possesses the dignity of a married woman. Before their aristocratic helpers will do anything for the dwellings of these social outlaws, they should first do something to get them out of their swinish thoughts and ways. If a small property-owner does put his tenements into a fair state of repair, he finds the wood-work has been torn up for fuel, the gas-pipe wrenched off and sold to a marine-store dealer for a penny or so, which has been promptly expended in beer. Anything that can be made use of is right, and then, when the end of the week comes, the tenants have decamped and not lodged their new address with the postmaster-general's subordinates.

The school-board has wakened up to the fact that when a little child's stomach is empty, its brain is not very active, and its receptivity and power of remembrance limited. So now it is agitated to provide a meal once a day for these famished waifs,—a scheme at once opposed by the conservative element, who believes in letting well alone, and who regards the school board as the most objectionable and pernicious of all radical legislation. Ignorance and suffering are the lot of the poor,—are essentially linked to poverty in the divine scheme,—and a sense of impiety is associated in some minds with any suggestion to interfere. Yet this is the class who have begun to believe that the poor live amidst insanitary surroundings, and whose own fastidious sense of comfort recoils from the idea of a bed of a little straw and the covering their wet, soiled day-clothes. The squalor has been there all along, but it is only when the necessities of political faction cause the Marquis of Salisbury to sound his clarion notes on the matter that the aristocrat bestirs himself. When these philanthropists have succeeded in framing a feasible plan for the housing of these wretched folk, what are they going to do next? To lodge them decently will not transform their natures. Paternal government may devote public money to building barracks for the post-office officials, and it may not be ill spent; but that will do nothing for a class far below that of persons with regular weekly wages on which they can

exist with some approach to decency. Slums will be destroyed to make room for these new erections, and where shall the inhabitants of these slums turn their faces to find other refuges? Grant that even habitations can be provided for this class, who is to furnish them and make them habitable in the ordinary sense of the word? It is impossible to do anything until the lowest strata are taught some different ideals. To them the workhouse is a distinctly superior accommodation, but then their ways and instincts revolt at rules and regulations. They like to go their own way and follow their own sweet wills, just as other two-legged featherless beings do; and, as to being made happy and comfortable according to some other person's ideal, it reminds me of what one often sees, —viz., a parent trying his utmost to make his children happy according to his judgment and not theirs. His plan may be full of benevolence and kindliness, but the enjoyment provided for them has no attractions for them to be interested therein, and the scheme fails. Their own way of enjoying themselves pleases them, if not approved of by him; what he approves of they do not care for. And when this ebullition of sentiment on the part of Dives towards Lazarus has expended itself in a royal commission, it will probably end in a realization that the Augean stable is too extensive to be swept by the broom of party feeling.

There is something about the Cockney waif which does impress one: his shifts are wonderful. Some time ago, a certain out-patient at St. Bartholomew's Hospital was noticed to be very assiduous in his application for cough linctus, a combination of treacle and morphia in vogue at most hospitals. So a watch was set, when it was discovered that this medicated treacle was used in the preparation of little pasties, which the enterprising confectioner vended on a barrow in a low neighborhood. Whether any harm had come to any of his customers from the morphia or not is unknown; probably the means of his little customers did not permit of their eating enough of them at once to do any mischief.

"The Bitter Cry of Outcast London" has been sent far and wide as a pamphlet; but philanthropy born of politics will do little for the Cockney proletariat.

J. Milner Fothergill.

A Suggestion for Chloroform and Ether Administration.—To overcome a repugnance to the odor of chloroform in certain patients, Prof. Nussbaum, of Munich, has a few drops of oil of cloves placed on the towel before giving the anæsthetic. The addition of one part to six of cologne to ether makes it much more easy of administration in some cases.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA CLINICAL SOCIETY.

Stated Meeting, February 22, 1884.

The President, Henry Beates, Jr., M.D., in the chair.

(Continued from page 517.)

DISCUSSION ON THE TREATMENT OF PUERPERAL CONVULSIONS.

Dr. ALBERT H. SMITH, in opening the discussion, said: The case just presented illustrates a question in which we are all thoroughly interested. I agree with the reporter that an earlier resort to blood-letting might have prevented a considerable number of the convulsions.

As to the pathology of puerperal convulsions, while the theory that attributes it to a renal origin has been combated by many, yet I accept it as the only one consistent with my clinical observations and the facts as established by the best authorities. I divide cases into two general classes,—those that depend on a renal trouble, and those that are hysterical. The discrimination between the two is easy; the mental conditions in the intervals between the convulsions, and other evidences of hysteria, make the diagnosis of this variety not at all difficult.

The very striking analogy that exists between the convulsions of scarlatina and pregnancy fixes the pathology of puerperal convulsions: the marked fact that their violence is directly proportioned to the rapidity of development of the blood-deterioration is a strong index of this relationship. Where we find a slow development of kidney-trouble in scarlatina, we find convulsions rare; just so in pregnancy. Where, on the contrary, it is suddenly developed in pregnancy, we find convulsions most frequent and most severe. If a child catches cold by exposure during convalescence from scarlatina, the convulsions may be great. [As an illustration, Dr. Smith related a case of a patient in the seventh month of pregnancy, who took cold in returning to the city from the sea-shore. The face and whole body became œdematous, and thirty-six hours later she was attacked with uræmic convulsions. The urine had been carefully examined one week before and found entirely free from albumen.]

I regard itching as a constant attendant upon puerperal convulsions, and when noticed in a pregnant woman always feel anxious. [Dr. Walker having replied to a question of Dr. Smith's, that he had examined the urine within the week, Dr. Smith resumed.] I thoroughly approve of bleeding in these cases, as establishing a vicarious action for the kidneys. As to amount, I am not readily frightened: thirty-six ounces sounds large, but a woman in labor loses three times that

amount without inconvenience. I believe the treatment adopted in this case a proper one.

Dr. MONTGOMERY.—I have been very much interested in the clinical history so well presented by Dr. Walker. I should, however, suggest as a criticism that his first doses, as prescribed, were too small. Had he given half a grain of morphine, or not less than thirty grains each of chloral and bromide, he would most probably have escaped the subsequent convulsions. In a case seen by myself in consultation, in which the convulsions were very severe, and the patient was then anæsthetized, we gave half a grain of morphine hypodermically, and chloral, forty-five grains, per rectum. The os, but slightly open, was dilated with Barnes's dilators until forceps could be applied and the delivery completed. The patient, though several days semi-comatose, recovered without a recurrence of the convulsions.

The only patient whom I have bled was one who had convulsions during my term as resident of the Philadelphia Hospital. In a twin labor a convulsion occurred during the delivery of the second child. Chloroform was used, and the forceps applied. A second convulsion followed the delivery of the placenta. She was then bled,—some thirty-two ounces. No further convulsions ensued; but puerperal fever set in upon the third day, from which she died.

Morphine and chloral in full doses have seemed sufficient to control the convulsions.

That the convulsions are not due to organic degenerative changes in the kidney, or even congestion, is made evident by the fact that in fatal cases we most frequently find the kidneys anæmic or bloodless. Again, eclampsia is a rare occurrence in pregnant women who are suffering from Bright's disease.

A point mentioned in the paper refers to the slight œdema and intense itching. The latter symptom, without doubt, is due to the circulation in the blood of an excrementitious product which should have been eliminated by the kidneys. A careful examination of the secretion would more than likely have demonstrated renal insufficiency, particularly in the quantity of urea eliminated.

In regard to the anæsthetic, I should like to call attention to the bromide of ethyl. It can be given at the inception of a pain, and acts sufficiently to decrease the discomfort without lessening the voluntary contractions. Under its uses one can dilate the vaginal orifice and the os, or apply the forceps, without pain. Its great advantages as an anæsthetic in labor are its rapid action and equally evanescent effect, and that it does not decrease the voluntary or involuntary contractions, thus promoting the danger of hemorrhage, as is the result of the more continuous anæsthetics, ether and chloroform.

Dr. LONGAKER.—I consider chloral, bromides, and morphia generally sufficient in these cases. In a case seen one year ago I tried chloral by itself in even larger doses than mentioned here,—a primipara in the eighth month of gestation. After the second convulsion coma continued, and phlebotomy was performed without marked effect. Eighteen hours after the convulsions began, chloral by rectum was resorted to, and one and a half drachms given in three hours. At this time the patient had had fourteen severe convulsions. Labor did not set in until two days after the cessation of convulsions, when complete consciousness had returned. She was delivered of a living fœtus of eight months, after a natural and easy labor. Both mother and child have since continued to do well. All traces of albumen disappeared from the urine in about a week. I think in this case chloral had a fair trial and most opportune result.

Dr. CHARLES P. TURNER.—In regard to the intense itching mentioned by the reader of the paper, I am satisfied that I saved a lady from puerperal convulsions by attention to this point. The itching was intense, and unrelieved by anodynes. Albumen was found to be present in the urine. As it was thought that she would succumb to the itching, premature labor was induced between the seventh and eighth months, with a favorable result. All symptoms subsided immediately. I think premature delivery is worthy of consideration in such cases.

Dr. Turner further cited cases of acute Bright's disease quickly developed after delivery as upholding Dr. Smith's opinions as to the etiological value of a depraved kidney-tissue in the production of puerperal convulsions.

Dr. ANDERS.—I recently saw in the London *Lancet* a new theory of the cause of puerperal convulsions. The womb in such cases was said to be prevented from expanding upwards, and growth was necessarily backwards against the kidneys. Between the two theories it would seem that the balance is in favor of the renal.

Dr. MCDOWELL.—It is well known that a circulation filled with serum will press upon the brain unduly. There certainly is pressure in such cases that is relieved by venesection. I never dilate, as I find venesection a dilator. Some time since, I had occasion to bleed a woman for brain-pressure in labor. The os was small and firmly contracted. After bleeding, I examined the vagina and found the child about to be delivered. After bleeding I direct free purgatives, with one-twenty-fifth of a grain of morphia, and a diet of skim-milk.

After blood-letting and free purgation no cases should be lost.

Dr. OTT.—Of the cases seen by me I have noticed that all complain of headache. I always expect convulsions when there is headache.

Dr. MASSEY asked the reader of the paper if pruritus in the pregnant condition was generally considered so grave a symptom as the history of this case would seem to indicate.

THE PRESIDENT.—That true puerperal eclampsia is of renal origin I think cannot be gainsaid, but that so much of import is attached to the quantity of albumen eliminated, and this proportion being made a basis of diagnostic value in estimating the intensity or degree of uræmic toxæmia, is, I believe, fallacious. A series of quantitative analyses instituted with a view of determining whether or not a direct relationship existed between the elimination of urea and that of albumen, while as yet too few to contribute much of definite knowledge, tend to confirm the belief that *no* direct relationship as above mentioned does exist. One specimen indicated a daily elimination of 300 grains of urea and 183 grains of albumen; another, 278 grains urea, 90 albumen; a third, 97 grains urea and 140 grains albumen; another, 180 grains albumen, 290 of urea. Of this series the matters vomited, which were largely liquid saliva and alvine dejections, were not analyzed, but the urine only. It is evident, therefore, that it is erroneous to form an opinion concerning the intensity of the *uræmia* from the quantity of albuminuria. That *uræmia* only is the etiological factor I doubt, and regard an accumulation of excrementitious matters in the blood as the cause of this affection. The kidneys, like other glands, the liver being a conspicuous analogue, are subject to influences, psychical, etc., that result in cessation of their functions, and the anuria so frequently known to precede puerperal eclampsia, notwithstanding absence of organic disease, permits with no great effort the belief that accumulation of by-products in the system constitutes an active cause.

The turgescence of the vessels, cerebral tension, excited nerve-centres, and prompt relief following free bleeding indicate and confirm the belief that in phlebotomy we possess a therapeutic means that will serve as a prophylactic before the eclamptic phenomenon has culminated, and a sure relief when the convulsion has occurred.

Dr. WALKER, in closing the discussion, said he was very glad to have presented a case that had proved so interesting to those present. There was no cutaneous evidence of itching, and I think it undoubtedly due to retention of excrementitious matters in the blood. It is the first time that it has ever occurred to me, and should have suggested an analysis for urea, as Dr. Montgomery has suggested.

As regards pathology, I do not believe that puerperal convulsions have a pathology, but that each case has an individual position and should be considered on its own merits. Sometimes they are merely reflex, due to an excessive convulsibility. The urine first drawn had only a trace of albumen. Dr. Smith's comparison was a just one. Before there were any convulsions in his case there were other evidences of renal trouble. In mine there were none.

In regard to large doses, I think that nothing more can be done than to put the patient into the chloral sleep, which was done. She was a near neighbor, and the doses were designed to be largely under my own supervision.

Bleeding is mainly useful as a sedative, not through exhaustion or the removal of effete materials.

PHILADELPHIA NEUROLOGICAL SOCIETY.

THE first stated meeting was held Monday evening, February 25, 1884, the Vice-President, Dr. CHARLES K. MILLS, in the chair.

Dr. MILLS read a paper on

THE MCGINNIS CASE.

A history of the case, including an account of the crime, and a discussion of the formation, proceedings, and reports of the commission to inquire into the mental state of McGinnis, was given.

The facts indicating the insanity of McGinnis were summarized by Dr. Mills, in the course of his paper, as follows: a bad family history; evidences of the monomaniacal character, as shown by a study of his life and present condition; the existence of a delusional state, and even of special delusions of a depressive and persecutory type; the presence of hallucinations of hearing and sight, the former being connected largely with persecutive ideas; some manifestations of religious monomania; a history of alcoholism, and the fact that his chief delusion, that of marital infidelity, was one often found in chronic alcoholic insanity.

Dr. LAMBERT OTT reported a case of unilateral spasm, hemiplegia, and aphasia, following measles, in a child two years and four months old. (See page 534.)

The discussion on Dr. Ott's paper was opened by Dr. FRANCIS DERCUM, who said he was inclined to regard the interesting case reported by Dr. Ott as more likely to be one of hemorrhage than of embolism. It is well known that the miliary aneurisms described by Charcot and others occur sometimes in the very young; therefore one of the conditions which lead to hemorrhage may be present in infancy. The absence of valvular disease of the heart was also against the idea of embolism.

Dr. Dercum thought that the symptoms presented by the case indicated a lesion of the internal capsule and basal ganglia, rather than of the convolutions. He referred to the more frequent occurrence of hemorrhage in

this region, and also to the wide extent of cortex that would have been required to be involved in order to explain the phenomena.

Dr. CHARLES K. MILLS agreed with Dr. Dercum that, from the history of the case, the absence of recognized heart-lesions, and the age of the patient, the case was probably one of hemorrhage. He believed, however, that some of the facts indicated a cortical lesion. One of these was the existence of choreic movements on the side opposite that which was paralyzed.

According to Duret, when irritative lesions of the cortex occur, they not only produce spasm on the opposite side of the body, but also may cause contraction or spasm on the same side, the result being brought about through irritation of the sensory nerves of the dura mater, which irritation is conveyed to the bulbo-medullary centres.

Dr. Mills referred to the completeness of the paralysis, as a matter of great interest in connection with the views of Broadbent as to the communication by well-worn commissural channels of those parts of the central nervous system which preside over movements of the two sides of the body which are associated.

Dr. JAMES HENDRIE LLOYD referred to the remarks which Dr. Ott had made about the angular gyrus not having been involved, and said he was not aware that any well-reported cases of embolism affecting the angular gyrus and causing blindness had been published.

Dr. DERCUM said that the occurrence of choreic movement on the side of the lesion could be as well explained by the transmission of irritation by means of the commissural channels of the brain, as by the views of Duret.

Dr. OTT closed the discussion, and said in favor of embolism is the sudden appearance of the attack, and an array of symptoms which usually follow an embolus in the left middle cerebral artery. In favor of cerebral hemorrhage is the disorganized condition of the blood as a resultant of measles, predisposing to such an occurrence.

On the conclusion of the discussion of Dr. Ott's paper, Dr. CHARLES K. MILLS read a

NOTE ON THE USE OF NERVE-PRESSURE FOR THE RELIEF OF HYSTERICAL CONTRACTURE.

In three cases Dr. Mills had resorted to strong pressure, applied, by means of the thumb or fingers, to the trunk of the nerve supplying the muscles affected by the spasm in contracture; in a case of hysterical spasmodic torticollis, and in one of hysterical contracture of the wrist and hand, the condition passed away, and remained relieved; in a case of long-standing contracture at the knees under the effects of pressure on the sciatics, the spasm disappeared, but recurred. The procedure was simple, and had value both as a means of diagnosis and treatment. Whether the effect was produced by mental effect, by causing a temporary paresis, or by the pain, he was not prepared to say.

Dr. WHARTON SINKLER spoke of having used the method unsuccessfully in a case of facial spasm, which was not, however, hysterical in character.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held April 3, 1884, H. T. HANKS, M.D., Vice-President, in the chair.

THE REMOVAL OF THE AFTER-BIRTH

was the title of the scientific paper of the evening, by Dr. H. J. GARRIGUES. The author practised Crédé's method, described as many as thirty years ago. When he became connected with the Maternity Hospital, this method was introduced into his wards at that institution. He gave the results of four hundred and eight cases treated in one year. Two of the patients aborted at the fifth and sixth months respectively, and the placenta was only removed piecemeal. In only six of the number did Crédé's method fail. In six the membranes had to be removed after separation of the placenta. In four of the cases there existed abnormally intimate connections between the placenta and uterus. In one of the six cases in which a part of the membranes was retained, the entire hand was introduced into the uterus in order to remove it; in the other five only the index and middle fingers were employed for this purpose. The uterus was afterwards washed out with the bichloride solution, one part to two thousand of water. As he had seen serious post-partum hemorrhage arise from leaving the membranes, he made it a rule always to remove them if retained beyond the usual time.

Crédé's method only increases the power of normal contraction of the uterus, by which the placenta is expelled; it closely imitates the natural contraction and movement of the uterus, shortens the third stage of labor, aids muscular contraction, and thus counteracts hemorrhage. There was post-partum hemorrhage in only two of the four hundred and eight cases, and in those it commenced directly after birth of the child, and was not due to attempts to deliver the placenta. It was important that the uterus be seized from all sides over the largest possible space, and that downward pressure be not practised except after the womb has contracted. In the majority of cases the after-birth was not thrown entirely outside of the vulva, but when it was not it could be removed without introducing the finger into the vagina.

The distinguishing features he claimed for Crédé's method over others were:

1. That it was used in all cases.

2. That the uterus was grasped from all sides with both hands.

3. That the placenta was squeezed out by the outside pressure during a uterine contraction.

4. That the cord and placenta were never touched, except in rare cases in which the placenta was really adherent and had to be pulled off from the uterine wall.

5. That the fingers were not introduced into the genital canal after delivery, when the danger of infection was much greater than before the passage of the child.

The advantages of this method were:

1. The certitude with which the desired end was accomplished.

2. The exact imitation of the natural processes.

3. The prevention of hemorrhage.

4. The prevention of hour-glass contraction.

5. The prevention of inversion.

6. The prevention of avulsion of the cord or of the uterus itself.

7. The prevention of infection.

The method of pulling upon the cord was attended by corresponding disadvantages. The method now practised by some in Germany, of non-interference, had many disadvantages and no redeeming qualities. It was not natural that the placenta remain in the genital canal for some hours after detachment, and if the patient were in the savage state she probably would get up soon after the birth of the child, and the after-birth, having become detached, would fall out of its own weight. On the contrary, as the patient in civilized life usually lies in bed after delivery, it might remain in the canal for hours before it came away.

DISCUSSION.

Dr. A. S. HUNTER endorsed the conclusions which Dr. Garrigues had arrived at, and would only say that he commenced Crédé's method just before the delivery of the child, and when followed up in this manner the uterus firmly contracted upon the placenta, and the period between the delivery of the child and of the after-birth was shortened.

Dr. A. HADDEN made gentle traction upon the cord and made pressure over the site of the placenta, and he did not believe that slight traction on the cord would induce inversion. He had attended over two thousand cases of midwifery, and had not been able to trace any evil result to this practice; on the contrary, his method had been rewarded with very good results. He took great pains to have the uterus contract into a globular form, and he remained with the patient some time after delivery of the placenta.

Dr. M. PUTNAM JACOBI thought Crédé's method superior to any other. She thought nature began to prepare for contraction of the uterus towards term by closing up the veins by thrombi and clots, and sending a greater amount of arterial blood, by which alone muscular contraction was favored. Crédé's method, by diminishing the uterine cavity, favored this occlusion of the veins. This was a theoretical idea which had come to mind while the author was reading his paper. In view of the exhaustive remarks which had already been made regarding Crédé's method, she could add nothing practical.

Dr. P. F. MUNDÉ practised Crédé's method, and it proved of the greatest service, but he thought we should take care not to follow it up too vigorously, and cause too rapid expulsion of the placenta, as it would be likely to be followed by uterine inertia. He had had such an experience, and was convinced of the importance of allowing nature to do her work somewhat slowly. When the fundus was found to have descended to about halfway between the pubis and umbilicus, and to have assumed a globular shape, we could feel pretty certain that the placenta was detached, and he did not then hesitate to introduce the hand, properly disinfected, and withdraw it from the cervical canal if it had not been farther expelled. He had seen the condition called encystment of the placenta, in which it had become detached and was retained within the contracted cervix, necessitating the introduction of the finger for its delivery. It was criminal not to remove retained membranes. He did not at all believe in the let-alone method. He also believed that gentle traction might be made upon the cord with safety.

Dr. FRUITNIGHT thought with regard to the let-alone policy that the placenta should be looked upon as a foreign body, and he could not conceive how any reasonable obstetrician could leave it in the genital canal longer than was absolutely necessary. In one case in which he had made, as he thought, gentle traction upon the cord, the placenta became detached in the centre while the margins remained attached, and it resulted in troublesome concealed hemorrhage. In a few cases Crédé's method might not be applicable, but they could be judged of when seen.

Dr. I. E. TAYLOR said that everything connected with childbirth was physiological. The delivery of the placenta was a physiological process, not pathological, and we should not interfere with nature's methods. He had not introduced the hand into the uterus to deliver the placenta more than six times, he believed, during his entire practice. The direction of the uterus varied after the birth of the child according to the attachment of the placenta, and he was enabled, by making slight traction upon the cord, to tell whether it was attached posteriorly, anteriorly, or to the fundus. He thought it wrong to make forced expression with the supposition that the placenta should be delivered within five or ten minutes. Such was not according to the law of nature. She waited twenty minutes,

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or even an hour. The uterus was fatigued in giving birth to the child, and needed immediate rest before being called upon again to contract and expel the after-birth. He had seen a case in which the placenta was attached at the entrance to the Fallopian tube, where Crédé's method, he thought, would have failed. He imitated the physiological process by making gentle traction upon the cord, and thus stimulating the uterus to expel the membranes.

Dr. RAMSDELL had once been called to see a patient whose physician had let the placenta remain for forty-eight hours. There was found to be hour-glass contraction. Septicæmia developed, and the patient died. He was in the habit of practising gentle traction on the cord and friction over the uterus. Out of seven hundred cases of confinement in his practice only one patient died, and in that instance death was due to vaginal injections, used by the nurse without his instructions. He had been obliged in two or three cases to introduce the hand and tear away the placenta, as one would tear the kidney from its fatty envelope in the hog. Usually the placenta came away in his practice within twenty minutes after the birth of the child; he did not think more than thirty minutes ever elapsed.

Dr. SELL thought we should not restrict ourselves to any absolute rule in the delivery of the placenta. In general he had found the method described by Denham, before Crédé, of greatest benefit. Formerly, under the teachings of Dr. Taylor, he waited half an hour to three-quarters of an hour. At present the placenta was usually delivered within from fifteen to twenty minutes. It should be strongly impressed upon the young physician that he should not be in too great a hurry to deliver the placenta.

Dr. GARRIGUES, in closing the discussion, said he thought we would all agree that it was desirable as far as possible to imitate nature's own methods, but as to what might constitute such an imitation we might not agree upon. For instance, he thought it certainly very unnatural to allow, after the method of those who would make no interference, the placenta to remain in the genital canal some hours after its detachment. In his opinion, also, it was not natural to make traction upon the cord, and, unless for unusual conditions, he did not touch it at all. The case of placental attachment around the entrance to the Fallopian tube, mentioned by Dr. Taylor, was probably one in which there had been tubal pregnancy and the ovum had descended to the uterine cavity. Such cases were very rare, and had no practical bearing upon Crédé's method. He would not feel justified in introducing the hand into the uterus for delivery of the after-birth before the lapse of an hour and a half; but, on the other hand, he did not think it right to leave the placenta until it should become decomposed.

GLEANINGS FROM EXCHANGES.

OVARIOTOMY.—In a lecture on the operation of ovariotomy, delivered at the Harvard Medical School (*Boston Medical and Surgical Journal*, No. 15), Dr. John Homans stated that he had opened the abdomen for various purposes two hundred and three times. He further says, "I have done the operation of ovariotomy one hundred and fifty-nine times. My first five cases of ovariotomy were performed without any antiseptic precautions whatever, and all died. In the next one hundred cases I used antiseptic agencies, including spray. Of these thirteen died and eighty-seven recovered. Since then I have operated for ovariotomy fifty-four times, with four deaths. My last thirty cases have all recovered. I ought, in this connection, to say that I have never declined to operate but once, the patient in that case having been already tapped to the amount of two thousand two hundred and seventy pounds in five years. I have operated upon all the other cases that have come to me, and although my late continued success is doubtless owing to good fortune, I feel that I can now perhaps do the operation better than I could at first." With regard to the spray he says, "I always use the spray, and need a steam atomizer. I do not believe that the spray is absolutely essential, but I have had very good success with it, and have never known that it has done any harm." He uses ether as an anæsthetic, and prefers to have seven assistants, whose duties are carefully assigned before the operation.

The steps of the operation are these: (1.) Make the incision down to the rectus muscle. (2.) Stop all bleeding in the abdominal walls. (3.) Open the abdomen and explore for adhesions. (4.) Tap the cyst as high as possible. (5.) Detach the adhesions. (6.) Draw out the cyst and clamp the pedicle with Dawson's clamp, burn it off with the cautery, tie it, and remove the clamp. (7.) Examine the other ovary, and remove it if necessary. (8.) Thoroughly sponge out the abdominal cavity. (9.) Close the wound. (10.) Apply the dressings, and put the patient in bed. He ties the pedicle with carbolized silk ligature.

After the operation, the patient should be left alone with her nurse, and should be allowed to sleep as long as she will. Sometimes there is vomiting, and sometimes not, but nothing need be done for it. As a general rule, the temperature is not much affected; it rarely rises above 100° F. during the whole convalescence. An opiate is generally required during the first twelve hours after the operation, and sometimes never again. He generally gives one-sixth grain of morphia, or its equivalent in solution by means of Bigelow's opiate enema syringe, which holds a drachm of fluid, and was figured in the *Bos-*

ton Medical and Surgical Journal, vol. xcvi. (1877), p. 360. The cardinal principle in taking care of a patient after ovariotomy is to give all opiates and stimulants *by the rectum* until flatus passes the bowels, or until all symptoms of nausea or vomiting have been absent for many hours.

DEVELOPMENT OF APOMORPHINE IN OLD MORPHINE SOLUTIONS.—Dr. C. E. Jennings, in the *Lancet*, calls attention to the importance of preparing extemporaneously solutions of the alkaloids for hypodermic medication. He shows that in addition to the loss of morphine in the solution from the development of the penicillium, there is also a certain amount of apomorphine formed. This may account for the violent vomiting sometimes following hypodermic injection of morphine. Since the syringe is so liable to get out of order from want of use, he recommends the substitution of a small graduated pipette, which operates without a piston, the fluid being discharged by blowing into the pipette through a rubber tube.

SULPHATE OF COPPER AS A DISINFECTANT.—Dr. Charpentier has used a one-percent. solution of copper sulphate in obstetrical practice as a disinfectant, and pronounces it an efficient and cheap substitute for carbolic acid or corrosive sublimate.

MISCELLANY.

A BILL TO REGULATE THE MEDICAL SERVICE OF STEAM-SHIPS AND OTHER PASSENGER-CARRYING VESSELS.—At the last meeting of the American Medical Association a committee was appointed, consisting of Dr. A. Nelson Bell, of New York, J. N. Quinby, of New Jersey, Henry I. March, of Massachusetts, Henry and Smith, of Pennsylvania, and Albert L. Gihon, U. S. Navy, to prepare a bill to present before Congress to regulate the medical service of passenger vessels.

The following is the full text of the bill, which was offered by Mr. Slocum in the House of Representatives, March 24, 1884. It has been read twice, and referred to the Committee on Commerce, and ordered to be printed:

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That in every steam-ship or other vessel carrying or bringing passengers other than cabin passengers to the United States there shall be properly constructed and separated from other parts of the vessel two compartments or spaces to be used exclusively as hospitals, the one for the men and the other for the women, such hospitals to be located on the main deck or the deck immediately below it, and never on any lower deck, and to be in no case less in size than the proportion of eighteen clear superficial square feet for every fifty such passengers and crew; and such hospitals shall be supplied with proper beds, bedding, and utensils, and kept so supplied throughout the voyage.

"SEC. 2. That every steam-ship or other vessel carrying or bringing passengers other than cabin passengers exceeding, with the crew, fifty in number, and less than six hundred, shall be required to carry a duly qualified, competent, and regularly licensed surgeon or medical practitioner, and where the number of such passengers and crew is over six hundred, a junior or assistant surgeon or medical practitioner in addition, which surgeons or medical practitioners, junior and senior, shall be rated as such on the ship's articles, and shall be provided with surgical instruments, medical comforts, and medicines proper and necessary for diseases and injuries incident to a sea-voyage, and for the proper medical treatment of such passengers and crew during the voyage, and with such articles of food and nourishment as may be proper and necessary for preserving the health of infants and young children; and the services of such surgeons or medical practitioners shall be promptly given without fee in every case of sickness, disease, or accident to any of the passengers or crew, or to any infant or young child of any such passenger who may require their services; and the medical officer, where there is but one, and the senior where there are two, shall also be required to perform the duties of sanitary officers, to make daily inspections of all inhabitable portions of the vessel, and daily reports thereon in writing to the master of the steam-ship or passenger vessel, together with such suggestions and recommendations as in his judgment may be necessary to the preservation of health on board. He shall also exercise constant vigilance in regard to the condition of the provisions and water, and promptly report to the master anything which may appear to him to be deleterious to the health of any person on board.

"SEC. 3. That for the proper exercise of these functions, and the maintenance of the respect to which such medical and sanitary officers are entitled, they shall be provided with a steward or apothecary competent to dispense medicines under their direction and for their special service; and their tenure of office, remuneration, and right to suitable quarters, subsistence, and attendance, shall be upon the same basis as and co-ordinate with the purser, first officer, and chief engineer of the vessel on which they serve.

"SEC. 4. That for a violation of either of these provisions, or the disregard of the recommendations made in writing by the medical and sanitary officers as herein provided, the company to which the steam-ship or other passenger vessel belongs shall be liable to a

penalty not exceeding two hundred and fifty dollars in every case.

"SEC. 5. That this act shall take effect and be in force from and after its passage.

DR. MORRIS LONGSTRETH, of Philadelphia, has just completed a course of six lectures on the "Germ Theory of Disease," in Boston. They were delivered by invitation of the directors of the Lowell Institute, in Huntingdon Hall. The position taken by the lecturer was one in antagonism to some of the recent views upon the etiology of disease which have been, perhaps too hastily, adopted. Many of the points advanced by the lecturer were original, and the matter was striking, new, and interesting, and the course attracted much attention and was well attended.

WE notice that the "Quarterly Epitome of American Practical Medicine and Surgery, collateral to Braithwaite's Retrospect," begins its fifth volume with the March issue under new editorial management. Its editor, Wesley M. Carpenter, M.D., of New York, is an experienced and successful medical journalist, who, in our opinion, combines good judgment and technical knowledge with professional accomplishments in just the proper proportions to qualify him for the task he has undertaken.

ALEXANDER WOOD, M.D., of Edinburgh, Scotland, died February 26. He was a distinguished physician and an able writer. He was the originator of hypodermic medication by means of the syringe and hollow needle. His article on a "New Method of Treating Neuralgias by Subcutaneous Injection" appeared in 1855.

PROF. ALFRED STILLÉ, after twenty years' service as a teacher, delivered his valedictory address to his class on April 10, his resignation, as announced at the beginning of the term, taking effect at the close of the session. He was received with great applause by the students, and his earnest utterances were listened to with marked attention and respect.

THE EGYPTIAN GOVERNMENT has abrogated the decree instituting a Council of Health, and has established a directorship of sanitary services attached to the Ministry of the Interior, in whose hands such services shall be centralized.

THE PHILADELPHIA SCHOOL OF ANATOMY is located now at 100 North Tenth Street, and is under the charge of Dr. Louis W. Steinbach, M.D., Lecturer on Anatomy and Operative Surgery.

THE PENNSYLVANIA SCHOOL OF ANATOMY AND SURGERY, George McClellan, M.D., lecturer, is at the corner of Tenth and Medical Streets.

THE spring course of lectures at the Jefferson College began April 14.

NOTES AND QUERIES.

A PERILOUS TOY.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—Under the title of "serpents' eggs" are offered for sale, in the toy-shops here, little pyramidal, gray-colored pastils, about one-eighth of an inch in diameter at the base and one-quarter of an inch high. Their average weight is 1.262 grains. They are used as follows. The pastil is placed on a plate or a piece of glass, and the flame of a match is held in contact with it. It begins to coil and wriggle like a snake, and looks as if it were alive, lengthening out to several inches. During the process of heating, the odor of cyanogen is evolved, and a brownish-gray serpentine form remains. This is, doubtless, an elegant amusement for scientific priests, ambitious schoolmasters, illiterate millionaires, philoprogenitive old maids, and other weak-minded persons. I have examined these pastils, and find that they consist almost entirely of *sulpho-cyanide of mercury*, containing traces of other metals, probably existing as impurities in the original mercury. The serpentine form above mentioned also contains mercury. In proof of the presence of mercury I send you a piece of copper-foil with a coating of that metal derived from a minute fragment from one of these pastils. Now, suppose that a child should eat or swallow two or three of these pastils (an event quite likely to happen), it would probably be dead in fifteen minutes. The danger, however, is not so much from the mercury as from the sulpho-cyanogen, which last is a very potent poison. As regards the mercury itself, I rather think that the majority of children born hereabouts would be positively benefited by the exhibition of small doses of that metal as soon as they are born—if not sooner. These "serpents' eggs" (or "sooner turds," as they are somewhat vulgarly styled here) might be used with murderous intent, and they are very easily procured at the toy-shops. It strikes me that when powerful poisons such as this sulpho-cyanide of mercury are sold as toys, something energetic ought to be done. There are one and three-tenths of a grain of sulpho-cyanide in each of these pastils. I am, sir,

Yours respectfully,
GEORGE HAY, M.D.,
Chemist.

ANALYTICAL LABORATORY,
198 PENN AVENUE, PITTSBURGH, PA.,
April 7, 1884.

INTERNATIONAL HEALTH EXHIBITION IN LONDON.

A somewhat novel feature in connection with the exhibition this year will be the establishment of a library and reading-room, a home for which the executive council have assigned in a large double room in the Albert Hall, overlooking the conservatory. Steps have been taken to secure a representative collection of works on vital statistics, of reports and regulations relating to public health, of regulations with reference to injurious trades, and of works thereon, of reports, statistics, and other works on the science of education. Foreign powers have been invited to lend their co-operation in this effort to create an international library of works of reference bearing on the two divisions of the exhibition, and several responses have already been received. India and the Colonies have also been asked to contribute towards the same end. Publishers and authors have likewise been invited to forward copies of their works. In addition to the library of reference, there will be a reading-room, to which the current numbers of periodical publications of a sanitary or educational character will be admitted. All books and periodicals sent to the library and reading-room will, under certain regulations, be arranged for the use of visitors, and not merely for exhibition. The books will be submitted to the jurors, and a full catalogue will be issued. All parcels for the library and reading-room should be addressed, carriage paid, to the Secretary of the Library Sub-Committee, Royal Albert Hall, London, S.W.

April 2, 1884.

THE AMERICAN MEDICAL ASSOCIATION.

In the Section of Practice of Medicine several subjects of great interest will be discussed. Prof. William Pepper, of Pennsylvania, will open the discussion on "The Clinical Study of Epilepsy." Dr. Roberts Bartholow, Pa.; Dr. Horatio Wood, Pa.; Dr. J. S. Jewell, Ill.; Dr. James T. Whittaker, Ohio; Dr. O. P. Hooper, Ark.; Dr. Eugene Grissom, N.C.; Dr. James E. Reeves, W. Va.; Dr. T. B. Lester, Kansas; Dr. Joseph P. Logan, Ga.; Dr. W. K. Bowling, Tenn.; Dr. John S. Moore, Mo.; Dr. James F. Hibbard, Ind.; Dr. J. J. Caldwell, Md.; Dr. John A. Murphy, Ohio; and Dr. A. P. Grinnell, Vt., are also expected to take part.

A discussion on the "Clinical Study of the Heart-Sounds" will be opened by Prof. Austin Flint, Sr., of New York. Dr. Edward Janeway, N.Y.; Dr. William Pepper, Pa.; Dr. Frederick C. Shattuck, Mass.; Dr. John H. Bemiss, La.; Dr. James Wilson, Pa.; Dr. Richard McSherry, Md.; Dr. James R. Leaming, N.Y.; Dr. John S. Lynch, Md.; and Dr. A. B. Palmer, Mich., are expected to participate.

A discussion on "Tuberculosis" will be opened by Dr. Henry F. Formad, of Pennsylvania. Dr. Austin Flint, Sr., N.Y.; Dr. William Welch, N.Y.; Dr. N. S. Davis, Ill.; Dr. George M. Sternberg, U.S.A.; Dr. R. S. Fitz, Mass.; Dr. Henry O. Marcy, Mass.; Dr. James Tyson, Pa.; Dr. Edward Janeway, N.Y.; Dr. Charles Dennison, Col.; Dr. Henry F. Campbell, Ga.; Dr. W. T. Belfield, Ill.; Dr. Alonzo Garcelon, Me.; Dr. E. O. Shakespeare, Pa.; Dr. G. C. Smythe, Ind.; Dr. Harold C. Ernst, Mass.; Dr. W. E. Geddings, S C.; Dr. Traill Green, Pa., and Dr. John Lynch, Md., will join in the discussion.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS.

The Annual Meeting of the Association of American Medical Editors will be held in Washington, May 5, at 8 P.M., in Medical Hall, southeast corner of Sixth and F Streets.

The Annual Address will be delivered by President Leartus Connor, M.D., on "The American Medical Journal of the Future, as Indicated by the History of American Medical Journals in the Past."

Dr. N. S. Davis will open the discussion on "How far can Legislation Aid in Elevating the Standard of Medical Education in this Country?" in which Drs. A. B. Palmer, Henry O. Marcy, L. S. McMurtry, C. H. Hughes, Frank Woodbury, William Brodie, A. N. Bell, William B. Atkinson, W. C. Wile, W. R. D. Blackwood, Henry Leffmann, and Deering J. Roberts will take part.

All members of the profession, especially journalists and authors, are invited to be present and take part in the meeting.

JOHN V. SHOEMAKER, M.D.,
1031 Walnut Street, Philadelphia. *Secretary.*

MODIFICATION OF GMELIN'S TEST FOR ALBUMEN IN THE URINE.

MR. EDITOR:

MY DEAR DOCTOR,—Some weeks ago you published a suggestion from me about Heller's test for albumen. I have received several letters asking me to state how I proceeded to add the cold urine to the *acid while boiling*. If my note bears this meaning on its face, will you kindly correct it by stating that I heat the acid to the boiling-point and then overlay with the suspected urine? The heating of the acid is to hold the urates in solution, which are precipitated in cold solutions, as stated.

Respectfully yours,
H. C. BOENNING.

528 FRANKLIN STREET.

OBITUARY NOTICE.

ARTHUR M. WILSON, M.D., Ph.D.

DR. ARTHUR M. WILSON, son of Dr. Benjamin B. Wilson, died at his father's residence, 1903 Chestnut Street, in this city, March 31, in the 22d year of his age.

Dr. Wilson was graduated from the University of Pennsylvania in 1882, taking the degree of Doctor of Philosophy in June of the same year.

He immediately entered upon the active duties of his profession, establishing himself in the home in which he grew up to manhood. So favorably was he known and regarded that his business became, at the outset, extensive as well as lucrative, placing him at once in a position that young physicians are usually obliged to devote years to attain.

But his health, which was never robust, had doubtless been impaired by too continued and persistent study during the period of his pupilage, and was now found unequal to the demands upon it. The inevitable exposure and fatigues of a physician's life developed in his case a constantly recurring tendency to lung-congestions, and he found himself unwillingly compelled to abandon his bright professional prospects and seek a hoped-for recovery in rest and the care of his family.

For a time the efforts of devoted relatives gave hopes of at least a partial restoration; but the past winter has been an especially trying one to invalids, and he passed away peacefully and happily, in the earliest bright days of spring.

Dr. Wilson's temperament was peculiarly amiable and kind, yet dignified and self-asserting. He was enthusiastic in his profession, and was possessed of perception and judgment remarkable in one so young.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM MARCH 30, 1884, *TO APRIL* 12, 1884.

BAILY, ELISHA I., COLONEL AND SURGEON.—Ordered to report to the Commanding General, Division of the Pacific, for duty as Medical Director of that Division and of the Department of California. Paragraph 4, S. O. 78, A. G. O., April 4, 1884.

SUTHERLAND, CHARLES, COLONEL AND SURGEON.—To be relieved from duty in Division of the Pacific, and to report to the Commanding General, Division of the Atlantic, for duty as Medical Director of that Division and of the Department of the East. Paragraph 4, S. O. 78, A. G. O., April 4, 1884.

SMITH, JOSEPH R., MAJOR AND SURGEON.—Directed to represent the Medical Department of the Army at the annual meeting of the American Medical Association, to be held in Washington, D. C., on the 6th of May, 1884, and, on the adjournment of the Association, to return to his proper station (San Antonio, Texas). Paragraph 7, S. O. 81, A. G. O., April 8, 1884.

WOODHULL, ALFRED A., MAJOR AND SURGEON.—Granted leave of absence for twenty-two days, to take effect about April 6, 1884. Paragraph 13, S. O. 72, A. G. O., March 28, 1884.

STERNBERG, GEORGE M., MAJOR AND SURGEON.—Ordered to be relieved from duty in Department of California, and to report to Commanding General, Department of the East, for assignment to duty.

MOSELEY, EDWARD B., CAPTAIN AND ASSISTANT-SURGEON.—Ordered to be relieved from duty in the Department of the East, and to report to the Commanding General, Department of the Columbia, for assignment to duty. Paragraph 4, S. O. 78, A. G. O., April 4, 1884.

BAILY, JOSEPH C., MAJOR AND SURGEON.—Leave of absence extended three months. Paragraph 8, S. O. 83, A. G. O., April 10, 1884.

WILCOX, TIMOTHY E., CAPTAIN AND ASSISTANT SURGEON.—Ordered to be relieved from duty in Department of the Columbia, and to report to the Commanding General, Department of the East, for assignment to duty. Paragraph 4, S. O. 78, A. G. O., April 4, 1884.

WHITE, ROBERT H., CAPTAIN AND ASSISTANT-SURGEON.—To be relieved from duty at U. S. Military Academy, West Point, N.Y., August 28, 1884. Paragraph 7, S. O. 74, A. G. O., March 31, 1884.

MEARNS, EDGAR A., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Fort Verde, Arizona Territory. Paragraph 1, S. O. 22, Headquarters Department of Arizona, March 19, 1884.

LIST OF CHANGES OF STATIONS OF NAVAL MEDICAL OFFICERS FROM MARCH 31 *TO APRIL* 12, 1884.

Medical Director P. S. WALES, granted one year's leave of absence from March 28, with permission to leave the United States.

Medical Inspector N. L. BATES, ordered to Washington, to attend sick officers.

Medical Inspector M. BRADLEY, ordered to continue at League Island Navy-Yard.

Assistant-Surgeon H. W. WHITAKER, ordered to Naval Rendezvous at Philadelphia, Pa.

Surgeon-General F. M. GUNNELL, appointed Chief of Bureau of Medicine and Surgery and Surgeon-General of the Navy, with the relative rank of Commodore, from March 27.

P. A. Surgeon C. W. RUSH, ordered to Naval Academy.

Surgeon D. MCMURTRIE, detached from Naval Rendezvous, Philadelphia, and to await orders for duty at Navy-Yard, Washington, D.C.

Medical Inspector H. C. NELSON, ordered before Retiring Board.

Medical Inspector A. C. GORGAS, to be Medical Director from March 4, on the active list.

P. A. Surgeon S. W. BATTLE, ordered before Retiring Board.

Surgeon H. M. WELLS, detached from Naval Hospital, New York, to report at Bureau for special duty.

P. A. Surgeon C. T. HIBBITT, placed on waiting orders.

Surgeon H. STEWART, placed on Retired List from April 10.